



DATE: Thursday – October 20, 2022
TIME: 5:00 P.M.
LOCATION: Airport Administration Building | 355 Golden Knights Blvd | Titusville, FL 32780

MEETING AGENDA

- A. Call to Order
- B. Pledge of Allegiance
- C. Roll Call
- D. Approval of Agenda
- E. Approval of Meeting Minutes
 - a. September 15, 2022 (Regular Meeting)
 - b. September 15, 2022 (Second Budget Meeting)
- F. Action Items
 - a. Approval of 321 Launch, LLC Ground Lease Agreement for unimproved property located along Center Lane at the Space Coast Regional Airport.
 - b. Airport Master Plan Studies
 - i. Approval of Professional Services Agreement with Ricondo and Associates in the amount of \$777,614.53 for a Master Plan Study at the Space Coast Regional Airport.
 - ii. Approval of Professional Services Agreement with Ricondo and Associates in the amount of \$653,460.71 for a Master Plan Study at the Merritt Island Airport.
 - iii. Approval of Professional Services Agreement with Ricondo and Associates in the amount of \$607,272.89 for a Master Plan Study at the Arthur Dunn Airpark
 - iv. Approval of Professional Services Agreement with Ricondo and Associates in the amount of \$300,000 for a Spaceport Master Plan Study at the Space Coast Regional Airport.
 - c. Approval of Invoices
- G. Deputy Director of Operations & Maintenance Report
 - a. Capital Improvement Projects Update
 - b. Hurricane Ian Report

H. On-Going Business

- a. Space Coast Innovation Park Update
- b. Director of Airports Annual Evaluation

I. Attorney's Report

J. Deputy Director of Finance & Administration Report

- a. Check Register
- b. Financial software update (QuickBooks)
- c. Request for Write-Off Bad Debts
- d. August 2022 Financial Statements

K. Authority Members Report

L. Public Comments

M. Adjournment

TITUSVILLE – COCOA AIRPORT AUTHORITY

The Regular Meeting of the Titusville - Cocoa Airport Authority was held on September 15, of 2022 at 5:00 p.m. at the Titusville - Cocoa Airport Authority Office at 355 Golden Knights Boulevard, Titusville, Fl and via video Conference. The following members were present: Mr. John Craig, Chairman; Mr. Donn Mount, Vice Chairman/Treasurer; Mr. Roger Molitor, Secretary; Mr. Brad Whitmore; Mr. Al Voss; Mr. Kevin Daugherty, AAE, Director of Airports; Mr. Adam Bird, Attorney; Mr. Mark Grainger and Ms. Jessica Curry were absent.

Call to Order

Mr. Donn Mount called the meeting to order and determined a quorum was present.

Pledge of Allegiance**Approval of the Agenda**

Mr. Mount called for motion to approve the agenda. Mr. Molitor made the motion. Mr. Whitmore seconded the motion. Motion passed.

Approval of Meeting Minutes:**1. August 18, 2022 – Regular Meeting**

Mr. Molitor made motion to approve the minutes as presented. Mr. Whitmore seconded the motion. Motion passed.

2. August 18, 2022 – First Budget Hearing

Mr. Molitor called for motion to approve the minutes as presented. Mr. Whitmore seconded the motion. Motion passed.

Action Items**1. Grants**

- a. Approval of Space Florida Agreement # C-21502 and Associated Resolution in the amount of \$300,000 for a Spaceport Master Plan Study at the Space Coast Regional Airport.**

Mr. Daugherty requested recommendation of approval as presented. Mr. Mount called for motion to approve. Mr. Molitor approved the motion. Mr. Voss seconded the motion. Motion passed.

2. Vehicle Purchase

a. Approval of purchase of 2022 Chevrolet Suburban in the amount of \$49,718 from Stingray Chevrolet

Mr. Hopman explained the purchase of new vehicle is to replace a nine-year-old Expedition used by the fire department which is beginning to have issues. Mr. Mount questioned the destination of the Expedition if replaced. Mr. Hopman stated it would go to auction. Mr. Craig questioned the location of the vehicle purchase in the budget. Mr. Daugherty replied that the purchase could be found in next year's budget which begins in a couple of weeks. Mr. Daugherty also explained the dealer would not invoice the purchase until after October.

Mr. Craig called for motion to approve the vehicle purchase. Mr. Voss made motion to approve. Mr. Whitmore seconded the motion. Motion passed.

3. Director of Airports Annual Evaluation

Mr. Craig stated the evaluation is not an action item and therefore no vote will be required.

Deputy Director of Operations and Maintenance Report

1. Capital Improvement Projects Update

Mr. Hopman gave an overview of the status on all projects.

Mr. Hopman stated a meeting with Michael Baker International was held today to discuss the Hangar 52 Demo Project completion.

Mr. Hopman discussed the activity of the Valiant Air Command ramp which includes the laying of sod and should be completed by the end of the month.

The re-bid of the corporate hangar project is underway stated Mr. Hopman.

Mr. Hopman stated the North Area Security Infrastructure Project has some issues such as flooding which the contractors are working to resolve.

Mr. Hopman explained the minor issues involving the ILS for the new tower at Space Coast.

The Fuel Farm Relocation Project design is almost complete stated by Mr. Hopman.

Mr. Hopman discussed the past month's operations at each airport. Mr. Hopman stated that Merritt Island Airport is still extremely busy. The noise complaints have been made by the same people and Mr. Hopman informed them that changes were being worked on by the Noise Abatement Committee.

2. Approval of Invoices

Mr. Hopman gave brief descriptions of current invoices along with their cost. Mr. Craig called for motion to approve all invoices as presented. Mr. Molitor made the motion to approve. Mr. Voss seconded the motion. Motion passed.

Space Perspective Update – Taber MacCallum; Founder and Co-CEO

Mr. MacCallum stated he was requested to give an update on the progress of Space Perspective which he is happy to do. Mr. MacCallum stated he has been involved with operating and launching from many areas of the country and finds the operation run by Mr. Daugherty to be one of the most professional.

Mr. MacCallum gave details of some improvements made and is working with Mr. Daugherty on long term plans for progression.

Mr. MacCallum stated any past delays developed were no fault of the Airport or the City of Titusville.

Mr. MacCallum stated his number of employees has increased and they have a variety of talent.

On-Going Business

1. Spaceport Name Change

Mr. Daugherty called for discussion or questions. Mr. Whitmore likes the idea of tying the name of Florida into the new name.

Mr. Daugherty stated a logo is in progress.

Mr. Craig requested a postponement until each Board Member is present.

Mr. Craig requested Mr. Bird do further background research on the name.

Attorney's Report

Mr. Bird discussed the Welsh Construction Litigation with having no end results.

Deputy Director of Finance and Administration Report**1. Check Register**

Ms. Kinard called for questions regarding the check register. Mr. Voss questioned the results of our standing in the past year.

Ms. Kinard stated the budget for the current fiscal year has been exceeded but is difficult to determine due to the clean up of past years.

Ms. Kinard believes progress will be made with implementation of the new software.

Mr. Whitmore stated his preference is for receiving monthly financial statements which would be easier to have an understanding as to where we are each month.

2. Financial Software Update (QuickBooks)

Ms. Kinard stated the use of QuickBooks is ready to begin October 1, 2022.

Ms. Kinard discussed the benefits of using QuickBooks such as showing the separate costs and revenues of each airport, Airport Storage and the ARFF Station.

Ms. Kinard believes the board members will be happy with the results that QuickBooks will provide.

Mr. Whitmore questioned the use of QuickBooks for payroll. Ms. Kinard replied QuickBooks use for payroll is currently being looked into.

Authority Members Report

Mr. Craig discussed the requested annual summary from Mr. Daugherty.

Mr. Craig reiterated that the request of annual summary is not an actionable item.

Mr. Craig stated the overall consensus of Mr. Daugherty's direction over the Authority and company as a whole is of a positive finding.

Mr. Craig gave Board Members the opportunity to address Mr. Daugherty's annual summary. Mr. Craig stated, on Mr. Grainger's behalf, that the correct choice was made in the hiring of Mr. Daugherty. Mr. Whitmore stated the Airport Authority is fortunate to have Mr. Daugherty. Mr. Molitor stated Mr. Daugherty has done a very nice job with the progress he has made. Mr. Mount stated he has enjoyed working with Mr. Daugherty over the past year.

Mr. Craig questioned Mr. Daugherty as to how the Board could better benefit his work. Mr. Daugherty stated he is pleased with the support of the Board.

Public Comments

None

Adjournment

Mr. Craig adjourned the meeting at 6:28 p.m.

JOHN CRAIG, CHAIRMAN

DONN MOUNT, VICE CHAIRMAN/TREASURER

TITUSVILLE – COCOA AIRPORT AUTHORITY

The Second Budget Hearing of the Titusville - Cocoa Airport Authority was held on September 15, 2022, at 6:01 p.m. at the Titusville - Cocoa Airport Authority Office at 355 Golden Knights Boulevard, Titusville, FL and via video Conference. The following members were present: Mr. John Craig, Chairman; Mr. Donn Mount, Vice Chairman/Treasurer; Mr. Roger Molitor, Secretary; Mr. Brad Whitmore; Mr. Al Voss; Mr. Kevin Daugherty, AAE, Director of Airports; Mr. Adam Bird, Attorney. Ms. Jessica Curry and Mr. Mark Grainger were absent.

Call to Order

Mr. Craig called the meeting to order and determined a quorum was present.

Consideration of the Proposed 2022-2023 Fiscal Year Budget

Ms. Kinard discussed changes that were made since the last proposed budget meeting for expenses upon request of board members.

Mr. Molitor stated that more money needs to be spent on maintenance and repairs of hangars due to most of the airport's revenue coming from hangar and facilities rentals.

Mr. Daugherty agreed to doing further research on hangar issues.

Mr. Craig asked if the public would like to comment on the budget. Due to no public comment, Mr. Craig returned the Board back to the budget.

Mr. Hopman discussed the money needed to address each airport's specific maintenance requirements.

Mr. Craig called for motion to approve the budget as presented. Mr. Voss made motion to approve. Mr. Molitor seconded the motion. Motion passed.

Adjournment

Mr. Craig adjourned the meeting at 6:17 p.m.

JOHN CRAIG, CHAIRMAN

DONN MOUNT, VICE CHAIRMAN / TREASURER

ABSTRACT OF NON-AERONAUTICAL GROUND LEASE

AIRPORT: Space Coast Regional Airport (TIX)

TENANT: 321 Launch, LLC

LANDLORD: Titusville-Cocoa Airport Authority

LEASED PREMISES: 4.07 Acres
(exact size subject to final site plan)

LEASE TERM: Thirty (30) years with two (2) renewal options of ten (10) years each

LEASE RENT: 12% of FMV with the following schedule: 25% of Tenant's total obligation to pay base rent on the six month anniversary of the Commencement Date. Cumulatively 50% of the Tenant's total obligation to pay base rent on the twelve month anniversary of the Commencement Date of this Lease; an additional 50% (cumulatively 100%) of the Tenant's total obligation to pay base rent upon the date Tenant receives a Certificate of Occupancy (not to exceed twenty-four months cumulative). Lease would be subject to CPI annual adjustments with a floor of 2.0% and a ceiling of 3.5%

**ESTIMATED
IMPROVMENTS TO BE
CONSTRUCTED
BY TENANT:** 15,000 sq. ft. of new vertical improvements and related infrastructure

**PRELIMINARY SITE
PLAN:** Attached as Exhibit "B" to the Ground Lease Agreement

**AUTHORITY
IMPROVEMENT
OBLIGATIONS:** None

TITUSVILLE-COCOA AIRPORT AUTHORITY
AND
321 LAUNCH LLC

NON-AERONAUTICAL LEASE AND DEVELOPMENT AGREEMENT

AT THE
SPACE COAST REGIONAL AIRPORT (TIX)

NON-AERONAUTICAL LEASE AND DEVELOPMENT AGREEMENT

THIS NON-AERONAUTICAL LEASE AND DEVELOPMENT AGREEMENT (hereinafter referred to as the “Lease” or “Agreement”), made and entered into on the Commencement Date (defined below), by and between the TITUSVILLE-COCOA AIRPORT AUTHORITY, having an office and place of business at Space Coast Regional Airport (TIX) (the “Airport”), 51 Bristow Way., Titusville, FL 32780 (the “Authority”), and 321 LAUNCH LLC, a Florida limited liability company with its principal place of business located at 350 Tangerine Ave., Suite 4, Merritt Island, FL 32953 (the “Tenant” and together with the Authority, the “Parties”).

WITNESSETH THAT:

WHEREAS, Authority has the exclusive right, power and authority to lease certain property (as herein identified) located in the County of Brevard, State of Florida; and,

WHEREAS, Authority desires to lease to Tenant, and Tenant desires to lease from Authority, said property located at the Space Coast Regional Airport (TIX) (the “Airport”) upon the terms and conditions hereinafter set forth; and

WHEREAS, in addition to the payment of rent and other consideration by Tenant to Authority for said lease, Tenant also intends to construct certain improvements on and to the Property (defined below) as set forth herein, which Authority recognizes provides a substantial benefit to Authority and further material consideration for the Authority to enter into this Agreement.

NOW, THEREFORE, in consideration of the promises, covenants, terms and conditions herein set forth, the parties have agreed and do agree as follows:

ARTICLE 1 **LEASE AGREEMENT, TERM, OPTIONS AND RENTAL**

SECTION 101. PROPERTY. Subject to the terms and conditions set forth hereinafter, Authority leases hereby to Tenant and Tenant rents hereby from Authority the property described on [Exhibit A](#) attached hereto (the “Property”), consisting of approximately 4.071 acres (177,346.12 sq. ft.), subject to a final survey and legal description, together with any and all rights of way necessary to permit ingress to and egress from the Property as required by Tenant’s site plan (the “Site Plan”) for construction of the Improvements (as provided herein) and development of the Property. The Authority is to furnish the Property with all utilities (including, without limitation, water, sewer, telecommunications and electricity) required in Tenant’s Site Plan or otherwise reasonably requested by Tenant, which Authority represents are available to the Property. Tenant’s preliminary Site Plan for the Property is attached as [Exhibit B](#) and within one hundred eighty (180) days of the Commencement

Date, or such additional time as agreed by the parties in writing, a copy of Tenant's final, approved site plan for the Property will be substituted for the preliminary site plan as [Exhibit B](#) hereto without the need for further amendment and shall thereafter be incorporated herein by reference.

Tenant, its officers, directors, employees, agents, assigns, subtenants, guests, invitees, customers, suppliers, contractors, and subcontractors, shall have the right of ingress to and egress from the Property over Airport roadways, including without limitation the use of the public access and non-licensed vehicular roadways, expressly subject to the Rules and Regulations as may be established by Authority, a current copy of which is attached as [Exhibit E](#), with respect to such use and subject to law.

SECTION 102. TERM AND RENEWAL OPTIONS.

Subsection 102.1. Term of Lease. The date this Lease is signed by all parties hereto is the “Commencement Date”. The initial term of this Lease shall be for a period of thirty (30) years following the Rent Commencement Date (as defined in [Subsection 104.1](#) below), plus any partial month in which the Rent Commencement Date occurs if the Rent Commencement Date is not the first day of a month, unless earlier terminated or unless extended as set forth herein.

Subsection 102.2. Options to Extend. Authority does hereby grant to Tenant the right, privilege and option to extend the term of this Lease for two (2) additional terms of ten (10) years each (each an “Option to Extend” or “Option Period”), upon the terms and conditions as herein contained; provided (i) written notice to Authority of Tenant’s intention to exercise said option is given by Tenant at least one-hundred twenty (120) days prior to the expiration of the then-current term (“Tenant's Option Deadline”) but not more than one (1) year prior to the expiration of the then-current term, (ii) Tenant shall not be in material default under the terms of this Lease beyond any applicable cure period at the time of such notice, and (iii) that this Lease is then in effect. Whenever reference is made herein to the “term” of this Lease, it shall include the initial term described in [Subsection 102.1](#) above and the renewal terms described in this [Subsection 102.2](#).

No earlier than eighteen (18) months prior to each of Tenant's Option Deadlines, Tenant shall, in its sole discretion, deliver to Authority written notice that it wishes to evaluate its Option to Extend and requesting Authority’s estimate of the FMV (as defined below) of the Property to be used to establish rent for the Property for the upcoming Option Period (the “Written FMV Request”). Within sixty (60) days of Authority’s receipt of the Written FMV Request from Tenant, Authority shall provide to Tenant Authority’s estimate of the fair market value (“FMV”) of the Property for the upcoming Option Period (the “Notice of Fair Market Value Rent”) to enable Tenant to determine whether or not to elect its Option to Extend by the Tenant's Option Deadline. The FMV shall be

obtained by a non-employee appraiser who is a member of the American Institute of Real Estate Appraiser (“M.A.I.”) with reasonable experience (i.e., not less than ten years) appraising non-aeronautical use of real property at public-use airports (the “Appraiser”). The initial annual base rent for the upcoming Option Period shall be equal to twelve percent (12%) of the FMV of the Property (the “Updated Rent”), with the FMV to be determined as set forth below.

In the event Authority fails to provide the Notice of Fair Market Value Rent for the Property within the sixty (60) day period provided above, then Tenant may at its sole cost and expense obtain its own appraisal of FMV for the Property performed by an Appraiser and within sixty (60) days after the deadline for the Authority to have provided the Notice of Fair Market Value Rent for the Property shall provide a Notice of Fair Market Value Rent to Authority.

Upon receipt of the Notice of Fair Market Value Rent, if the receiving party accepts the FMV contained within the Notice of Fair Market Value Rent or fails to object to the FMV contained within the Notice of Fair Market Value Rent within sixty (60) days of receipt of the Notice of Fair Market Value Rent, the FMV identified in the Notice of Fair Market Value Rent shall conclusively establish the FMV for the Property for the upcoming Option Period. However, nothing in this paragraph shall operate as Tenant’s exercise of one or both of its Options to Extend, and Tenant must still validly and timely exercise such Option(s) to Extend in its sole discretion in order for the Lease to be extended thereby.

Upon receipt of the Notice of Fair Market Value Rent, if the receiving party disagrees with the Notice of Fair Market Value Rent, the receiving party shall provide written notice of each objection, within sixty (60) days of receipt of the Notice of Fair Market Value, including a statement of what the receiving party believes the FMV should be for the Property for the upcoming Option Period and an appraisal from a non-employee appraiser who is an M.A.I. member with reasonable experience (i.e., not less than ten years) appraising aeronautical use of real property at public-use airports supporting that statement. If the receiving party delivers a timely objection, then upon the other party’s receipt of the objection, the parties shall, for a period of thirty (30) days (the “Negotiation Period”), negotiate in good faith to agree on the FMV of the Property for the upcoming Option Period. If the parties agree, said agreed-upon FMV for the Property shall establish the rental value of the Property for the upcoming Option Period. However, nothing in this paragraph shall operate as Tenant’s exercise of one or both of its Option to Extend, and Tenant must still validly and timely exercise such Option(s) to Extend in its sole discretion in order for the Lease to be extended thereby.

If the parties are unable to agree on the FMV of the Property for the upcoming Option Period prior to the end of the Negotiation Period, then the parties’ respective appraisers shall cooperate to mutually select a third appraiser

(“Deciding Appraiser”), and each party shall submit its respective proposed FMV and appraisal(s) to the Deciding Appraiser, who will conclusively determine the FMV of the Property using “baseball style arbitration.” Once the Deciding Appraiser has been selected, then, as soon thereafter as practical but in any case within ten (10) days, each party will submit a proposed FMV for the Property to the Deciding Appraiser for a determination as to the FMV thereof, and the Deciding Appraiser must select one of the FMV allocations proposed by the parties and may not choose or determine his/her own allocation of FMV. All costs and/or fees of the Deciding Appraiser shall be borne equally by the parties. The determination by the Deciding Appraiser shall be rendered in writing to both Authority and Tenant and shall be final and binding on them. The FMV for the Property established through “baseball style arbitration” shall establish the rental value of the Property for the upcoming Option Period, subject to Tenant’s exercise of one or both of its Option to Extend, and Tenant must still validly and timely exercise such Option(s) to Extend in its sole discretion in order for the Lease to be extended thereby.

If Tenant exercises its Option to Extend and the Option Period commences before the FMV for the Property can be established, Tenant shall continue to pay to Authority monthly the same monthly rent and amounts due under the Lease for the last full month immediately preceding commencement of the Option Period. Once the FMV and, thus, the rent due Authority from Tenant for the Property during the Option Period is determined as set forth herein, Authority shall provide a “true up” calculation to Tenant going back to the commencement of the Option Period through the date FMV is established (the “True Up Period”). If Tenant paid more than monthly FMV for the Property during the True Up Period, then Tenant shall receive a credit toward its next monthly rent payment(s) and continue receiving a credit until the credit is used up. If Tenant paid less than monthly FMV for the Property during the True Up Period, then Tenant shall pay to Authority the difference between what it actually paid and the FMV for the Property for the entire True Up Period within thirty (30) days of Authority providing written notice of the amount due or within some other time as agreed to by the parties in writing.

SECTION 103. USE OF PROPERTY.

Subsection 103.1. Improvements to the Property. Authority acknowledges hereby that Tenant is leasing the Property generally for the purpose of constructing and maintaining improvements on the Property, including without limitation a multipurpose processing facility to serve the small satellite and small launch vehicle communities. In order to utilize the Property for these purposes, it will be necessary to construct at a minimum buildings and other improvements (collectively, “Improvements”) upon the Property and to make alterations and renovations thereto at Tenant's sole cost and expense, unless otherwise addressed in this Lease. The Improvements are generally set forth in [Exhibit B](#). Tenant agrees that its construction of the Improvements is an integral and material part of this Lease and Authority’s assent to lease the Property to Tenant. Tenant agrees to comply with all applicable

rules, laws, regulations and requirements pertaining to its construction of the Improvements and the use of the Property which were provided in advance to Tenant, including, but not limited to, applicable building codes and zoning ordinances of state and local governments as well as applicable rules and regulations of the Authority. Other improvements to be constructed on the Property of structural or exterior nature, including landscaping design, shall be subject to additional approval by Authority, provided, however, Authority's approval shall not be unreasonably withheld, delayed or conditioned. Tenant hereby agrees to indemnify and to save Authority harmless from any and all costs and/or expenses of any kind relating to construction of the Improvements to the extent arising by, through, or under Tenant, except to the extent arising from the obligations that are the responsibility of Authority at law or under this Lease or within Authority's control, and, further, except to the extent such costs and/or expenses arise from Authority's, or its agents', tenants' or contractors' acts or omissions, interference, negligence or willful misconduct.

For purposes of this Lease, the term "Construction Period" shall mean the period from the Commencement Date (as defined in **Subsection 102.1** above) until the Tenant receives a Certificate of Occupancy. Tenant, subject to approval by Authority, which approval shall not be unreasonably withheld, delayed or conditioned, shall upon obtaining any and all necessary government permits and/or approvals have the right to change, alter, raze or add to any Improvements, or any part thereof, now existing or change, alter or add to any Improvements, or any part thereof hereafter erected, constructed or installed on the Property and remove the personal property (the "Personalty") installed or placed by Tenant in, on, or about the Improvements on the Property, assuming Tenant is not in monetary default of this Lease. Authority acknowledges and agrees that title to all future Improvements and Personalty shall not be in Authority but is and shall remain in Tenant during the term of this Lease.

Subsection 103.2. Delivery and Acceptance of the Property. Tenant will use all reasonable efforts to submit for the appropriate building permits, licenses, and other approvals necessary to construct the Improvements from all appropriate governmental authorities having or asserting jurisdiction over the Property. In the event that (a) Tenant is unable to or does not obtain, within two hundred seventy (270) days from the Commencement Date, such building permits, licenses, and other approvals necessary to construct and maintain the Improvements on the Property from all appropriate governmental authorities having or asserting jurisdiction over the Property, or (b) Tenant is unable to or does not obtain, within two hundred seventy (270) days from Commencement Date, Authority's approval of the plans and specifications for the Improvements and landscaping design therefore for the Property on terms and conditions acceptable to Tenant, then at the sole option of Tenant, Tenant shall have the right to terminate this Lease within thirty (30) days of the expiration of said 270-day period, in which event neither party shall have any further obligation to the other hereunder, and payments previously made by Tenant to Authority shall be refunded. Tenant may request approval from Authority to extend either of the periods set

forth above. Authority agrees that it will not unreasonably withhold, condition or delay its consent to extend said periods, and further, Authority shall provide such support and assistance as Tenant reasonably requests in connection with obtaining any license, permit or other approval necessary to construct the Improvements and use and occupy the Property as contemplated by Tenant, provided that Authority shall not be required to expend any money or incur any costs and/or expenses in assisting Tenant unless the expenditures and costs were contemplated or required by Authority to be incurred or paid under other provisions of this Lease or such costs are de minimis. Authority does not and cannot guarantee the successful or timely issuance of said approvals, grants, permits, or authorizations.

Subsection 103.3. Compliance with Section 255.05, Florida Statutes/No Lien. Authority and Tenant acknowledge that as a result of Authority's reversionary interest in any improvements to the Property at the end of the term of the Lease, including without limitation the Improvements, as set forth in this Lease, no individual or entity is entitled to a construction lien on the same as provided in chapter 713, Florida Statutes. Accordingly, Tenant shall be required at its sole cost and expense to comply with the provisions of section 255.05, Florida Statutes, as may be amended from time to time.

SECTION 104. BASE RENT AND ADJUSTMENTS.

Subsection 104.1. Base Rent. Annual base rent due Authority from Tenant shall be calculated and paid as set forth below commencing on the Rent Commencement Date (as hereinafter defined):

A. The initial annual base rent for the Property shall be equal to twelve percent (12%) of the FMV of the Property as established pursuant to the procedure set forth in **Subsection 102.2**, above, for determining Updated Rent. Said initial annual base rent shall then be adjusted or re-calculated as set forth in this Lease. As used in this Lease, the term "base rent" shall mean the rent due and payable from Tenant to Authority for real property not including taxes, fees, expenses, utilities or other charges related to said real property. One-twelfth (1/12) of the annual base rent due Authority from Tenant shall be paid to Authority on or before the first day of each month, in advance.

B. Base rent for the Property and Tenant's obligation to pay same to Authority shall commence on the earlier of: (a) the date Tenant receives a Certificate of Occupancy allowing lawful use for the building constructed on the Property, or (b) the following staggered schedule: 25% of Tenant's total obligation to pay base rent on the six month anniversary of the Commencement Date of this Lease (the "Rent Commencement Date"); an additional 25% (cumulatively 50%) of the Tenant's total obligation to pay base rent on the twelve month anniversary of the Commencement Date of this Lease; an additional 50% (cumulatively 100%) of the Tenant's total obligation to pay base rent upon the date Tenant receives a Certificate of Occupancy (not to exceed twenty-four months cumulative)

allowing lawful use for the building constructed on the Property. If tenant establishes an alternative stream of income relative to activities on the Property prior to obtaining a Certificate of Occupancy, as defined previously, Tenant will renegotiate these terms with Authority.

C. Tenant's obligation to pay base rent to Authority hereunder, as adjusted from time to time pursuant to the terms of the Lease, shall continue from commencement through expiration or sooner termination hereof, unless expressly set forth herein. As soon as reasonably possible after the Rent Commencement Date, the parties shall insert such Rent Commencement Date on [Exhibit D](#) as then revised and annexed to this Lease and execute the same; however, no delay in executing [Exhibit D](#) hereto shall affect Tenant's obligation to pay rent as set forth above.

In addition to the base rent, as may be adjusted from time to time pursuant to the terms of the Lease, Tenant shall pay to Authority as additional rent any sales tax which may be due under applicable state law on all base rent and any other sums payable hereunder, if applicable, at the rate prescribed by Florida or local law from time to time. Authority agrees to remit such sales tax, if applicable, to the State of Florida or other legal authority as required by law.

Subsection 104.2. Service Fee For Off-Site Drainage Service. RESERVED.

Subsection 104.3. Rent Adjustments. Each year on the anniversary of the Commencement Date of the Lease and commencing on the first Commencement Date anniversary occurring after the Rent Commencement Dates for the Property have occurred (the "Rent Adjustment Date(s)"), all rent and other Property-related payments and charges due Authority from Tenant as set forth in this [Section 104](#) of this Agreement shall increase by the greater of: (a) any increase in the Consumer Price Index ("CPI") (All urban consumers 1982-1984 = 100; all items) based on a twelve (12) month period ending ninety (90) days prior to the anniversary date of the Commencement Date, or (b) two percent (2.0%) of the then-current amount, but in no event shall the increase exceed three and one half (3.5%) percent over and above the immediate-prior year's rent and Premises-related payments and charges.

Subsection 104.4. Additional Rent. The term "Additional Rent" shall mean any monetary obligation of Tenant under this Lease other than Base Rent, including without limitation those set forth in Article 3, below.

ARTICLE 2

AUTHORITY AND TENANT OBLIGATIONS

SECTION 201. COMPLIANCE WITH ALL LAWS. Tenant agrees that it will substantially observe and comply with all laws, ordinances, orders and regulations applicable to the business operated by Tenant on the Property. Authority warrants and represents that on the Commencement Date, the Property is in compliance with all applicable laws, rules, ordinances, orders, and regulations, including, without limitation, laws regarding hazardous wastes.

SECTION 202. REPAIRS, ALTERATIONS AND MAINTENANCE. Authority shall not be obligated to maintain the Property or the Improvements thereon during the Lease term unless such maintenance is required as a result of the negligence or wrongful acts or omissions of Authority or its officers, directors, employees, agents, assigns, tenants, subtenants, guests, invitees, suppliers, contractors, or subcontractors. Tenant shall maintain the Property and the Improvements thereon in good, clean and neat condition at its own cost and expense and shall ensure that all regular maintenance and repairs normally and customarily performed by commercial tenants are performed by Tenant on and for the Property and all Improvements thereon. Furthermore, Tenant agrees, at its sole cost and expense, to maintain all of the Improvements, including any parking and service areas, and utilities on and/or servicing the Property in a good state of repair.

Additionally and without regard to any other term of this Lease, at the expiration or earlier termination of this Lease pursuant to the terms hereof, Tenant shall have thirty (30) days to have conducted on the Property at Tenant's sole cost and expense a Phase 1 Environmental Site Assessment for each of the Property and shall provide the final, written reports and assessments stemming from said Phase 1 Environmental Site Assessment(s) to Authority within five (5) business days of Tenant's receipt thereof.

SECTION 203. UTILITIES AND SITE ACCESS. Authority will, to the extent feasible and without incurring any costs or expenses, assist Tenant in obtaining the required engineering studies and in the application process of extending utilities and transportation access in relation to Tenant's use of the Property. The capacity and availability of public and private utilities is not guaranteed by Authority to the extent it has no control over the same. Further, Authority cannot guarantee approvals for road entrances, traffic island crossovers, signalization, turning lanes, or acceleration lanes, etc. In the event a critical utility (potable water, sewer, electricity and/or telecommunications) or adequate transportation access (as required and determined by Tenant in its sole and absolute discretion) cannot be made available to the Property within one hundred eighty (180) days of the Commencement Date, Tenant may terminate this Lease without prejudice. Unless otherwise stated in the Lease, Authority shall be responsible for all costs associated with the extension of utilities, both public and private, to the Property, and Tenant shall be responsible for any improvements to any such properties necessary for site access.

Tenant shall have the right to grant any easements, rights of way, and licenses required by any public or quasi-public utility company with respect to the construction, operation and use of the Improvements and Personalty. Authority shall execute any instruments which any such public or quasi-public utility companies may reasonably request or require from Authority; provided, however, that in each case such easement, right of way or license (i) does not materially impair the value, utility and remaining useful life of the Property, (ii) is reasonably necessary in

connection with the construction, operation or use of the Improvements and Personalty, and (iii) does not cause the Property or any portion thereof to fail to comply with all material requirements of law.

SECTION 204. UTILITY CHARGES. Tenant shall be responsible for charges for electricity, water, sewer, telecommunications, solid waste, heat, janitor service or any other utility or service consumed in connection with the occupancy of the Property by Tenant.

SECTION 205. ADDITIONAL TENANT OBLIGATIONS. Brevard County will determine if the Improvements are of sufficient size to require a transportation concurrency study and/or other traffic access studies. Tenant is responsible for all studies and costs associated with this requirement, as well as the assessments and improvements required by Brevard County. In addition, Tenant is responsible for all transportation, utility and other impact fees associated with this project related solely to Tenant's improvements levied by Brevard County, and Tenant shall be solely entitled to the benefit of any credits provided by such governmental entities related thereto.

SECTION 206. FAILURE OF TENANT TO COMMENCE OR COMPLETE CONSTRUCTION.

A. In the event Tenant does not commence with construction of the Improvements (defined as beginning physical work on the Property) within Three Hundred Sixty (360) days of the Commencement Date (as defined in [Subsection 102.1](#)) for any reason not directly caused by Authority or its officers, directors, employees, agents, assigns, subtenants, guests, invitees, suppliers, contractors, or subcontractors, which period will be extended due to Force Majeure or delays outside of Tenant's reasonable control, then in that event, Authority may terminate this Lease. In order to effectuate termination, Authority shall provide a notice of non-monetary default in the manner provided under [Article 6](#) provided, however, that Tenant shall have sixty (60) days to cure this notice of default. Provided Tenant does not cure within this notice period and Authority terminates the Lease, Tenant shall reimburse to Authority all direct costs Authority has paid with respect to this Lease, including but not limited to, costs related to site appraisal, boundary survey, environment studies, legal, preliminary engineering, permitting and site planning.

B. Tenant shall substantially complete construction of the improvements identified in [Exhibit B](#) hereto on or before a date two (2) years from the Commencement Date of this Lease unless the delay in construction was caused by elements of Force Majeure or delays caused by the Authority or its officers, directors, employees, agents, assigns, subtenants, guests, invitees, suppliers, contractors, or subcontractors, in which event this period shall be extended by Authority for a reasonable length of time to allow Tenant to complete the construction of the improvements referenced herein.

C. In the event Tenant fails to complete any improvement specified herein in **Subsection B**, above, by the date specified therein, or by the date of any extensions granted by Authority, the Authority shall deliver written notice to Tenant of said failure to complete construction of said improvements within the allotted time period and notice of its intent to terminate this Lease (“Notice of Intent to Terminate”) effective one hundred twenty (120) calendar days after the delivery of the Notice of Intent to Terminate to Tenant. Tenant shall then have the right to complete the construction of said improvements during the one hundred twenty (120) calendar days period or may otherwise request a good faith extension of the time to complete said improvements providing the reason for said extension. The parties understand that significant investment will be made by the Tenant to the Property and any requests for an extension of the time to complete the improvements should be allowed, provided Tenant provides reasonable assurance of how the improvements will be completed. Should Tenant fail to respond to the Notice of Intent to Terminate or fail to take any actions to complete construction of the improvements within the allotted time, then Authority shall have the right to terminate this Lease by written notice to Tenant given any time after the expiration of the 120-day period without obligation of Authority to pay Tenant any compensation for work performed and funds expended prior to such termination.

SECTION 207. ADDITIONAL COVENANTS, WARRANTIES AND REPRESENTATIONS OF AUTHORITY. Authority warrants and represents that there are (i) no mortgages, liens or encumbrances, (ii) no covenants or restrictions, and (iii) no agreements with third parties, which may prevent or impair Authority from performing any of its covenants under this Lease.

SECTION 208. SIGNS. Tenant shall have the right to erect and maintain such sign or signs on the Property and Improvements as may be permitted by applicable law, ordinances and codes and Tenant shall have the right to expressly name its facilities as Tenant deems appropriate and allowed under applicable law.

ARTICLE 3 **TAXES**

SECTION 301. AD VALOREM TAXES. Tenant shall pay all ad valorem taxes levied or assessed against the Property by the appropriate governmental authorities as a result of Tenant’s occupancy or use of the Property pursuant to this Lease, whether the billing is addressed to Authority or Tenant, together with all taxes levied against any stock of merchandise, furniture, furnishings, equipment and other property located in, on or upon the Property, including without limitation the Improvements, if applicable. Tenant shall have the right to contest the validity or amount of any ad valorem tax imposed against the Property and the Improvements at Tenant's sole cost and

expense. Upon adjudication (including all appeals) of such contest, Tenant shall pay all court costs, interest, penalties and other expenses related to the appeal.

SECTION 302. SOLID WASTE FEES. If applicable, Tenant shall pay all solid waste fees assessed against the Property by the appropriate governmental authorities as a result of Tenant's occupancy or use of the Property pursuant to this Lease, whether the billing is addressed to Authority or Tenant.

SECTION 303. STORM WATER FEES. Tenant shall pay all storm water fees assessed against the Property by the appropriate governmental authorities (excluding the Authority for the purposes of this Section) as a result of Tenant's occupancy or use of the Property pursuant to this Lease.

SECTION 304. EMERGENCY AMBULANCE FEES. If applicable, Tenant shall pay all emergency ambulance fees assessed against the Property by the appropriate governmental authorities as a result of Tenant's occupancy or use of the Property pursuant to this Lease, whether the billing is addressed to Authority or Tenant.

SECTION 305. OTHER TAXES AND FEES. If applicable, Tenant shall pay any and all lawful and reasonable tax, fee, or assessment that may be levied by third parties as a result of Tenant's occupancy or use of the Property pursuant to this Lease and not known at this time. For the avoidance of doubt, Tenant shall not be obligated to pay any taxes, fees or assessments which may be levied, imposed, or created by Authority, other than those taxes, fees or assessments expressly set forth in this Lease as of the Commencement Date.

SECTION 306. BILL RECEIVED BY AUTHORITY. For the purposes of **Sections 301-305**, should a billing be addressed to the Authority that Authority believes is the responsibility of Tenant, Authority shall provide the bill to the Tenant promptly. Should Authority not provide the billing to Tenant within an appropriate time such that Tenant may contest the amount or pay timely, Authority shall be responsible for all losses suffered by Tenant as a result of Authority's tardiness in providing the billing to Tenant. Further, Tenant shall have the right to contest the validity or amount of any ad valorem tax, assessment or fee imposed against the Property and/or the Improvements at Tenant's sole cost and expense.

ARTICLE 4 **INSURANCE AND INDEMNITY**

SECTION 401. LIABILITY INSURANCE. In addition to such insurances as may be required by law, Tenant shall maintain, without lapse or material change, for so long as it occupies the Property and/or the Improvements thereon, the following insurance:

(A) Commercial General Liability Insurance, including Contractual Liability, to cover Tenant's property, Improvements and operations in an amount not less than \$5,000,000.00 combined-limit, per-occurrence

for bodily injury and property damage. Authority must be shown as an additional insured with respect to this coverage. Coverages shall be for each occurrence or an annual policy aggregate of no less than twice the amount of coverage required for each occurrence. A combination of umbrella or excess liability insurance may be combined with such commercial general liability insurance to arrive at such annual policy aggregate amount. In the event that Tenant's available coverage falls below the per occurrence amount shown above, Tenant shall secure a new certificate of insurance evidencing the required coverage. Tenant acknowledges that Authority reserves the right not to accept policies with deductibles in excess of \$50,000.00.

(B) Automobile Liability Insurance covering all owned, non-owned and hired vehicles (including ground or mobile equipment) used by Tenant in connection with its operations under this Lease in an amount not less than:

(1) \$5,000,000.00 combined single-limit, per-occurrence for bodily injury and property damage covering all vehicles used by Tenant in connection with its business operation; and

(2) \$5,000,000.00 combined single-limit, per-occurrence for bodily injury and property damage covering such vehicles when being used by Tenant off of the Airport.

(C) A policy of insurance, if applicable, such as a Pollution Legal Liability (PLL) policy if compliant herewith, in a coverage amount not less than \$1,000,000.00 single-limit, per-occurrence intended to provide coverage for environmental risks, including without limitation hazardous materials (whether known or unknown), spill or seepage of pollutants or other hazardous materials or waste, negligent or otherwise improper disposal of waste and other risks related to Tenant's use of the Property. The Authority shall be named in the policy as an additional insured.

(D) The insurance coverages required shall include those classifications, as listed in standard liability insurance manuals, which most nearly reflect the operations of Tenant under this Lease. All insurance policies required pursuant to the terms of this Lease shall be issued by companies approved to do business under the laws of the State of Florida. Such companies must be rated no less than "B" as to management, and no less than "V" as to strength, in accordance with the latest edition of "Best's Insurance Guide," published by A.M. Best Company, Inc., or its equivalent, subject to approval of Authority.

SECTION 402. PROPERTY INSURANCE.

(A) Builders Risk and Hazard Insurance: Tenant, at its sole cost and expense throughout the term of this Lease shall keep the Improvements insured on an "All Risk" basis in an amount not less than 100% of the full replacement value of the Improvements against loss or damage (in excess of a reasonable per occurrence deductible amount, which shall be the responsibility of Tenant) by fire, lightning, tornado, hurricane, windstorm,

hail, flood, explosion, riot, riot attending strike, civil commotion, vandalism and malicious mischief, water leakage or seepage, sprinklers and sprinkler leakage, aircraft, vehicles and smoke, or any other casualty to the extent such coverage is commercially available at commercially reasonable rates. The full replacement value of the Improvements shall be established as of the Commencement Date of this Lease and shall be established at intervals of not more than three (3) years thereafter by the firm and professional property evaluators used by Authority for establishing replacement values for Authority property or any other firm and/or individual chosen by Authority in the reasonable exercise of its discretion. Any deficiency in the amount of the proceeds from such property insurance resulting from a failure by Tenant to properly establish the full replacement value of the Improvements shall be the sole responsibility of Tenant, and Tenant shall be liable therefor. In addition, subject to the rights of any Tenant note or mortgage/prior lien holder, Authority shall be shown on the policies as a loss payee as its interest appears and as required pursuant to this Lease.

(1) Damage or Destruction and Restoration of the Improvements: In case of substantial damage to or destruction of all or a portion of the Improvements, Tenant shall give prompt notice thereof to Authority, and Tenant shall promptly commence and complete with due diligence (subject only to Force Majeure and insurance adjustment and receipt of insurance proceeds), the restoration of the damaged or destroyed portion of the Improvements as nearly as reasonably practicable to the value and condition thereof immediately prior to such damage or destruction. In the event of such damage or destruction, the proceeds of all property insurance policies shall be used to restore the facility to make it function for the uses permitted under this Lease. Tenant shall receive reimbursement from the proceeds of all applicable property insurance policies it has procured in restoring the Improvements to their pre-loss condition as set forth in this paragraph to the extent determined by Tenant, and Tenant shall be obligated to provide any additional monies necessary for such restoration as determined by Tenant. Notwithstanding the foregoing, Tenant's obligation to rebuild shall be expressly contingent on the availability of sufficient insurance proceeds including availability of such proceeds being made available from any lender of Tenant.

(2) Damage or Destruction Near End of Lease: Within the last five (5) years of the base Lease term or the last five (5) years of any Option Period if Tenant exercises one or both of its option to extend the Lease, in case of damage to or destruction of all or a portion of the Improvements, Tenant shall have the right within thirty (30) days of the damage to give notice to Authority ("Notice of Damage Termination") of the loss and elect not to restore the Property, but rather to assign all applicable proceeds of all property insurance policies to the Authority to the extent the proceeds are applicable to Improvements (and not Personalty) and terminate the Lease effective one hundred twenty (120) days after the Notice of Damage Termination is sent to the Authority.

(B) Business Interruption Insurance: Tenant at its sole cost and expense throughout the term of this Lease and any extension hereof shall maintain business interruption insurance, at a minimum, in an amount sufficient to continue making all payments hereunder and maintaining the insurance required hereunder during the rebuilding period as a result of damage to the Improvements.

SECTION 403. INSURANCE CERTIFICATES. Prior to the commencement of operations hereunder and annually thereafter, Tenant shall furnish or cause to be furnished certificates of insurance to Authority which certificates shall clearly indicate that:

- (A) Tenant has obtained insurance in the types, amounts and classifications as required for compliance with this Lease;
- (B) The policy cancellation notification provisions specify at least thirty (30) days advance written notice of cancellation to Authority, provided, however, only ten (10) days' notice of cancellation shall be required if due to failure to pay premiums;
- (C) Authority is named as an additional insured with respect to Tenant's commercial general liability policies;
- (D) Authority is named as a loss payee with respect to Tenant's builders risk and property insurance policies; and
- (E) On said insurance certificates, liability coverage shall include contractual liability and notification of cancellation.

SECTION 404. ADDITIONAL INSURANCE. The parties acknowledge that should the industry standards for insurance coverages being required for comparable properties and uses exceed the minimum insurance amounts set forth in this Lease, the parties will negotiate in good faith to reasonably review such requirements amend this **Article 4** as mutually agreed.

SECTION 405. COMPLIANCE. Compliance with the requirements of this **Article 4** shall not relieve Tenant of its liability under any other portion of this Lease or any other agreement between Authority and Tenant, and Tenant's obligations to Authority hereunder are not limited to available insurance proceeds unless otherwise provided in the Lease.

SECTION 406. RIGHT TO EXAMINE. Authority reserves the right, upon reasonable notice to Tenant, to examine true copies of applicable portions of policies of insurance (including but not limited to binders, amendments, exclusions, riders and applications) to determine the true extent of coverage. Tenant agrees to permit such inspection.

SECTION 407. PERSONAL PROPERTY. Any personal property of Tenant or of others placed in or on the Property, Improvements and anywhere else at the Airport shall be at the sole risk of Tenant or the owners thereof, and Authority shall not be liable for any loss or damage thereto, except to the extent such loss or damage was caused by the negligence or wrongful acts or omissions of the Authority officers, directors, employees, agents, assigns, subtenants, guests, invitees, suppliers, contractors, or subcontractors, as limited or otherwise affected by section 768.28, Florida Statutes.

SECTION 408. INDEMNITY. Each party (the “Indemnifying Party”) shall indemnify and hold harmless the other party and/or its officers, directors, employees, agents and assigns, (the “Indemnified Party”) from any and all liability, losses or damages, including reasonable attorneys’ fees and costs of defense, that Indemnified Party incurs or may incur as a result of claims, demands, suits, causes of action or proceedings of any kind or nature arising out of, relating to or resulting from the negligence or wrongful acts and/or omissions of the Indemnifying Party and/or its officers, directors, employees, agents or assigns. The Indemnifying Party shall pay all claims and losses in connection therewith and shall investigate and defend all claims, suits or action of any kind or nature in the name of Indemnified Party, where applicable, including appellate proceedings, and shall pay costs, judgments and reasonable attorney’s fees which may issue thereon. The Indemnifying Party expressly understands and agrees that any insurance protection required by this Lease or otherwise provided by such Indemnifying Party shall in no way limit its responsibility to indemnify, keep and save harmless and defend the Indemnifying Party and/or its officers, directors, employees, agents or assigns as herein provided. The obligation of Indemnifying party hereunder shall survive the termination of this Lease. The Indemnifying Party's obligation to indemnify the Indemnified Party hereunder shall in no way affect, abridge or amend an Indemnifying Party’s right to assert governmental or sovereign immunity as to any claims, other than those by the parties or their respective permitted transferees and assignees, including without limitation the immunity afforded under section 768.28, Florida Statutes.

ARTICLE 5

PREVENTION OF USE OF THE PROPERTY

If, after the Commencement Date, Tenant is precluded or prevented from constructing or operating the Improvements on the Property as contemplated by Tenant by reason of any zoning law, zoning ordinance or zoning regulation of any public authority having jurisdiction over the Property, and such prohibition shall continue for a period of at least ninety (90) days, then Tenant may terminate this Lease by giving to Authority not less than thirty (30) days prior written notice of termination.

ARTICLE 6
DEFAULT BY TENANT

SECTION 601. EVENT OF DEFAULT. As used in this Lease, the term "event of default" shall mean any of the following:

(A) Any failure to pay any sums due Authority under this Lease, including without limitation base rent and Additional Rent, where such failure to pay is not cured within thirty (30) days following written notice to Tenant by Authority;

(B) Other than for non-payment of sums due Authority, the failure of the Tenant, after receipt of written demand from Authority specifying the nature of the default, to fulfill any duty or obligation imposed on Tenant by this Lease within sixty (60) days of said written demand unless a different cure period is specifically provided elsewhere in this Lease or, if such default cannot be cured within sixty (60) days, to commence to remedy or correct such default and to diligently pursue cure of such default throughout the 60-day cure period and diligently thereafter through complete cure;

(C) The appointment of a receiver for Tenant, Tenant filing a petition seeking bankruptcy protection of any kind, the assignment by the Tenant for the benefit of creditors and/or the participation by the Tenant in any other insolvency proceeding, except if such appointment, order, assignment or proceeding is stayed, dismissed or vacated within ninety (90) days of the commencement thereof; or

(D) The taking of the leasehold interest of the Tenant hereunder pursuant to an execution on a judgment.

SECTION 602. DELINQUENT PAYMENTS. If any rent payment, including any Additional Rent, due to Authority pursuant to this Lease is not paid (the "Delinquent Payment") within fifteen (15) days of the date the same is due, the Delinquent Payment shall bear interest at the rate of eighteen percent (18%) per annum until the date the same is paid in full to Authority.

SECTION 603. AUTHORITY'S REMEDY UPON DEFAULT. Upon the happening of any event of default beyond any applicable cure period(s), the Authority may, at its option, terminate this Lease and obtain possession of the Property from Tenant through any lawful means and without prejudice to any other remedy available to Authority, provided however, that as a prerequisite to Authority's termination of this Lease or of Tenant's right of possession of the Property (unless otherwise addressed elsewhere in this Lease as to a specific event of default), the Authority shall deliver written notice to Tenant of said event of default and notice of Authority's intent to terminate this Lease ("Notice of Intent to Terminate") effective one hundred twenty (120) calendar days after the delivery of the Notice of Intent to Terminate to Tenant and any leasehold mortgagee ("Final

Cure Period”). Tenant and any leasehold mortgagee shall then have the right to cure the event of default during the Final Cure Period. Should Tenant (or any leasehold mortgagee) not cure the event of default within the Final Cure Period, unless Authority consents in writing or a longer cure period is provided elsewhere in this Lease as to a specific event of default, the Lease shall be terminated.

ARTICLE 7

DEFAULT BY AUTHORITY

Authority shall be in default if Authority fails to perform any of its covenants, agreements or other obligations under this Lease, and such failure continues for a period of sixty (60) days after receipt by Authority of written notice from Tenant of such failure, or, in the event of an emergency, reasonably promptly after written notice. Should Authority default, Tenant shall have the right (but not the obligation) to take such actions and to expend such monies as are reasonably necessary to correct the Authority’s failure to perform if and only if: (1) the Authority fails to commence and continue to cure the default within the 60-day cure period, or (2) the Authority provides written notice to Tenant that it cannot cure its alleged failure to perform. In such event, Tenant may expend such sums as are reasonably necessary to cure Authority’s default, and no approval of the reasonable sums by the Authority is necessary. Tenant shall be entitled to offset the cost to cure, plus an administrative fee of five percent (5%) of such costs incurred by or on behalf of Tenant, against its next monthly rent payment(s) and continue applying the offset as a credit until the credit is used up. The foregoing rights of self-help and set-off shall be in addition to, not in lieu of, any rights and remedies which Tenant has at law, in equity or under this Lease.

ARTICLE 8

REAL ESTATE COMMISSION

Authority and Tenant covenant and warrant one each to the other that it has not authorized any person, firm or corporation as a real estate agent or broker to deal on behalf of Authority with Tenant or Tenant with Authority. The provisions of this **Article 8** are subject to the indemnifications of **Subsection 408**.

ARTICLE 9

IDENTITY OF INTEREST

The execution of this Lease or the performance of any act pursuant to the provisions hereof shall not be deemed or construed to have the effect of creating between Authority and Tenant the relationship of principal and agent or of a partnership or of a joint venture, and the relationship between them shall be and remain only that of landlord and tenant.

ARTICLE 10
NOTICES AND REPORTS

All notices required to be given hereunder shall be in writing and shall be deemed effectively given upon the earlier of actual receipt or (i) personal delivery to the party to be notified; (ii) when sent, if sent by electronic mail or facsimile during the recipient's normal business hours, and if not sent during normal business hours, then on the recipient's next business day; (iii) five (5) calendar days after having been sent by registered or certified mail, return receipt requested, postage prepaid; or (iv) one (1) business day after the business day of deposit with a nationally recognized overnight courier, freight prepaid, specifying next-day delivery, with written verification of receipt. All communications shall be sent to the Parties at their respective addresses as identified below, or to such email address, facsimile number, or address as subsequently modified by written notice given in accordance with this Article:

Authority:	Director of Airports Titusville-Cocoa Airport Authority 51 Bristow Way Titusville, FL 32780 kdaugherty@flyspacecoast.org
With a required copy to:	WhiteBird, PLLC 2101 Waverly Place, Ste. 100 Melbourne, FL 32901 Attn: Adam M. Bird, Esq. abird@whitebirdlaw.com
Tenant:	321 Launch, LLC 350 Tangerine Avenue, Suite 4 Merritt Island, FL 32953 Attn: Cheree A. Kiernan, Chief Executive Officer cheree@321launchllc.com

ARTICLE 11
MEMORANDUM OF LEASE

Either party may file a Memorandum of this Lease with the Brevard County Property Appraiser's Office or have the same recorded by the Brevard County Clerk of Court at the recording party's expense.

ARTICLE 12
ENTRY OF AUTHORITY

Authority may enter the Property, except as set forth hereinbelow, during Tenant's normal business hours with reasonable advance notice (not less than one (1) business day, except in emergencies constituting an immediate threat to life or property) and subject to Tenant's reasonable security rules and regulations as follows:

- (A) To inspect or protect the Property;
- (B) To determine whether Tenant is complying (as required under this Lease) with the applicable laws, orders or regulations of any lawful authority having jurisdiction over the Property or any business conducted therein;
or
- (C) To show the Property to prospective tenants or buyers during the last six (6) months of the term of this Lease.

In exercising its entry rights under this Article, Authority shall use all reasonable efforts to not disturb Tenant's conduct of business and use of the Property.

ARTICLE 13
LEASE EXPIRATION

At the expiration of the Lease, all improvements erected on the Property, including without limitation the Improvements, shall become the sole property of Authority, and Tenant hereby knowingly and voluntarily waives any claims related to the same, including without limitation claims for unjust enrichment or any other legal or equitable relief seeking value of any kind for such Improvements. Any and all trade fixtures, signs, moveable equipment, and other personal property placed on the Property by Tenant in which Tenant (or its lenders) has (have) legal or equitable title shall remain Tenant's sole property, and Tenant shall have the right to remove the same within twenty (20) business days after expiration of the Lease, provided any damages caused by such removal are repaired by Tenant at the time of removal and provided, further, that Tenant is not in material default of the Lease. In the event Tenant is not in material default of the Lease and fails to remove all of its personal property within twenty (20) business days after expiration of the Lease, the Authority will provide written notice to Tenant and an opportunity to remove personal property from the Property within thirty (30) days of Tenant's receipt of the notice. Should Tenant fail to remove the personal property after the thirty (30) days of receipt of the notice, said failure to remove shall be deemed to be an abandonment of the property. In the event of such abandonment, Authority shall have the right to remove and sell or dispose of the personal property without any liability to the Tenant which obligation shall survive the expiration of or termination of the Term of this Lease. All monies received from any sale or disposal of the personal property by Authority shall first be used to reimburse Authority for any expenses incurred including without

limitation reasonable attorney's fees and costs of all kind and nature and any expenses related to removal, storage and/or sale of said personal property, and the balance remaining after setting off any sums still owed by Tenant to Authority shall be remitted to the Tenant.

ARTICLE 14 **QUIET ENJOYMENT**

Subject to the provisions of this Lease, Authority covenants that Tenant, on paying all sums due hereunder and fully and timely performing the covenants of this Lease on its part to be performed within applicable notice and cure periods set forth in the Lease, shall and may peaceably and quietly have, hold, and enjoy the Property for the term of this Lease. Authority represents that it has authority to execute this Lease, that it has obtained all necessary governmental authorizations or approvals to execute this Lease and that this Lease constitutes a valid and binding obligation of Authority, enforceable against Authority in accordance with its terms.

ARTICLE 15 **GOPHER TORTOISE AND OTHER PROTECTED SPECIES RELOCATION**

Within sixty days of the Commencement Date, or such other times as the parties may agree in writing, Authority shall obtain all required permits or licenses and shall relocate any gopher tortoises found on the Property to Authority's chosen gopher tortoise preserve or such other location as may comply with all applicable law. The Tenant shall pay the cost of such relocation. If any other species of plants or animals are identified on the Property at any time that have been listed as endangered, threatened, of special concern or protected in any respect pursuant to any applicable federal, state or local laws or regulations, the removal of or mitigation for which has any impact upon the construction of the Improvements or Tenant's use and occupancy, Authority and Tenant shall cooperate to expedite the removal or mitigation of such condition by the Authority at Tenant's sole cost and expense; any performance deadlines of either party effected by such condition shall be extended. Proper permits for the removal and relocation of any animal or plant, if required, shall be obtained by the Authority from the applicable governmental authority and removal and relocation of such animals or plants shall be performed in accordance with state statute or the regulations of all applicable government authorities.

ARTICLE 16 **AIRPORT SECURITY**

Tenant shall comply with applicable Airport security access control, to include, but not limited to, all doors and gates that access the Airport Operations Area (AOA). Any changes or modifications regarding access will need prior written approval from the Airport Security Coordinator (ASC) or his/her designee. Tenant shall comply with

all reasonable security directives as outlined in the Airport Security Program (ASP) and should direct any questions or concerns about Airport security matters to the ASC. Any of Tenant's employees who may be required to have access to the AOA must comply with Airport badging requirements. As long as Tenant takes appropriate steps to train, monitor and discipline its employees, agents, contractors and subcontractors concerning the Airport's security requirements, Tenant shall not be in default of this Lease for violations of the Airport's security requirements by its employees, agents, contractors and subcontractors.

Additionally, Authority recognizes and acknowledges that Tenant may be enacting and enforcing its own reasonable security protocols necessary for Tenant's operation of its business at the Airport and consents to the same to the extent they are not in conflict with existing Airport security protocol.

ARTICLE 17 **RULES AND REGULATIONS**

The current Rules and Regulations for the Authority are attached as [Exhibit E](#) (the "Rules and Regulations"). From time to time Authority may adopt and amend the Rules and Regulations with respect to the occupancy and use of the Property and Authority owned property; provided that if any change in the Authority's Rules or Regulations drives additional cost to Tenant, Tenant either shall be afforded a waiver from such new or amended Rules and Regulations or an equitable adjustment shall be made in Tenant's rent to offset the additional costs of complying with such new or amended Rules and Regulations. Tenant shall observe and obey such Rules and Regulations and shall require its officers, directors, employees, agents, assigns, subtenants, guests, invitees, suppliers, contractors, and subcontractors to observe and obey the same (provided that Tenant will not be deemed to have violated any new rule or regulation unless the Authority has provided at least thirty (30) days prior notice of such change to Tenant). Authority reserves the right to deny access to the Property, Authority-managed airports and airfields and/or Authority facilities to any person or entity that repeatedly fails or refuses to obey and comply with such Rules and Regulations and/or any applicable laws. Authority's Rules and Regulations will not be inconsistent with the terms of this Lease nor with valid rules, regulations orders and procedures of the Federal Aviation Administration or any superior government authority duly authorized to make or enforce rules and regulations for the operation of the Airport and the operation of aircraft using the Airport. Additionally, to the extent any change to the Authority's Rules and Regulations affects Tenant's then-existing Improvements, Personalty, site plans and/or business operations, Tenant's affected Improvements, Personalty, site plans and/or business operations shall be "grandfathered" in and not affected by such changes to the Rules and Regulations to the extent such changes are not reflective of any change in applicable and mandatory law or regulation to which the Airport and/or Authority are subject.

ARTICLE 18
MINIMUM STANDARDS

In addition to the covenants herein contained, this Lease is further subject to the applicable provisions of those certain minimum standards pertaining to tenants as adopted by Authority. The current Minimum Standards are attached as part of [Exhibit E](#). In addition, if Tenant qualifies as a Fixed Base Operator (FBO), the design of the Fixed Base Operation, to include modern facilities, must be approved by Authority, which approval shall not be unreasonably withheld, delayed or conditioned.

ARTICLE 19
HEIGHT RESTRICTIONS

Tenant expressly agrees for itself, its successors and assigns, to restrict the height of structures, objects of natural growth and other obstructions on the Property to such a height so as to comply with Federal Aviation Regulations, Part 77, as applicable to the Property, and as amended from time to time if such amendments are made after the Commencement Date and are retroactive. Authority shall, to the extent it is able, assist and work with Tenant for Tenant to submit to the FAA for approval of the height of the Improvements such that the FAA may determine that the planned Improvement will not violate the height requirements underlying Federal Aviation Regulations, Part 77, as of the Commencement Date of this Lease.

Tenant expressly agrees for itself, its successors and assigns, to prevent any use of the Property by, through or under Tenant which would interfere with or adversely affect the operation or maintenance of any Authority owned airport and/or airfield, or otherwise constitute an airport hazard. Authority covenants and acknowledges that the use of the Property as proposed by Tenant does not and will not, to Authority's knowledge, interfere with or adversely affect the operation or maintenance of the airport or otherwise constitute an airport hazard.

Authority reserves unto itself, its successors and assigns for the use and benefit of the public a right of flight for the passage of aircraft in the airspace above the surface of the Property, together with the right to cause in such airspace such noise as may be permitted by law and inherent in the operation of aircraft, now known or hereafter used, for navigation of or flight in the airspace, and for use of said airspace for landing on, taking off from, or the operation of, any Authority owned airport and/or airfield.

ARTICLE 20
NONDISCRIMINATION

(A) Tenant for itself, its heirs, personal representatives, successors in interest, and assigns, as a part of the consideration for this Lease, does hereby covenant and agree, as a covenant running with the land comprising

the Property, that in the event Improvements are constructed, maintained, or otherwise operated on the Property for a purpose for which a Authority of Transportation program or activity is extended or for another purpose involving the provision of similar services or benefits, Tenant shall maintain and operate such facilities and services in compliance with all other requirements imposed pursuant to Title 49, Code of Federal Regulations, Authority of Transportation, Subtitle A, Office of the Secretary, Part 21, Nondiscrimination in Federally-Assisted Programs of the Authority of Transportation-Effectuation of Title VI of the Civil Rights Act of 1964, and as said regulations may be amended.

(B) Tenant, for itself, its personal representatives, successors in interest, and assigns, as part of the consideration for this Lease, does hereby covenant and agree, as a covenant running with the land comprising the Property, that (1) no person on the grounds of race, color, or national origin shall be excluded from participation in, denied the benefit of, or be otherwise subjected to discrimination in the use of said facilities, (2) in the construction of any improvements on, over, or under such land and the furnishing of services thereon, no person on the grounds of race, color, or national origin shall be excluded from participation in, denied the benefit of, or be otherwise subjected to discrimination, and (3) that Tenant shall use the Property in compliance with all other requirements imposed by or pursuant to Title 49, Code of Federal Regulations, Authority of Transportation-Effectuation of Title VI of the Civil Rights Act of 1964, and as said Regulations may be amended.

This provision shall not be effective until the procedures of Title 49, Code of Federal Regulations, Part 21 are followed and completed including exercise or expiration of appeal rights. The remedies for breach of this provision shall be limited to those remedies provided under said regulations. Nothing herein shall be interpreted or deemed to preclude Tenant from complying with all applicable export control laws and regulations and applicable government security requirements.

ARTICLE 21 **WARRANTIES**

Authority warrants that upon the Commencement Date, the Property will be free and clear of all encumbrances except ad valorem taxes, if applicable, for the current calendar year and easements and restrictions of record; that there are no easements, restrictions of record, environmental condition or other condition which will (i) impair, preclude or adversely affect Tenant's use and development of the Phase 1 Property, as contemplated by this Lease, (ii) interfere with Tenant's rights under this Lease, or (iii) interfere with Authority's ability to perform its covenants and obligations under this Lease; that Authority has full power and authority to execute this Lease and that it will warrant and defend the leasehold interest created hereby against all parties whomsoever and that Tenant upon observing and complying with the terms, covenants and conditions of this

Lease shall enjoy the quiet and undisturbed use and occupancy of the Phase 1 Property during the Lease term and any renewals thereof. Apart from the warranties provided in this paragraph and elsewhere in the Lease, Authority makes no representations and provides no other warranties concerning the Property and/or its use.

ARTICLE 22

ASSIGNMENT AND SUBLETTING

Tenant shall not assign this Lease or sublet the Property or any portion thereof, or otherwise transfer any right or interest hereunder, without the prior written consent of Authority, which consent shall not be unreasonably withheld, delayed or conditioned.

ARTICLE 23

ENVIRONMENTAL REPRESENTATIONS, WARRANTIES, AND INDEMNIFICATION

SECTION 2301. ENVIRONMENTAL REPRESENTATIONS AND WARRANTIES BY TENANT. Tenant represents and warrants that it will comply and will be in compliance in all material respects with all applicable federal, state and local environmental laws, regulations, codes or ordinances, as it relates to the Property commencing after its occupancy thereof. The parties recognize that Tenant's operation may involve the use of hazardous substances (as defined in the Comprehensive Environmental Compensation and Liability Act of 1980, as amended, the Resources Conservation and Recovery Act of 1986, as amended, or any successor or similar law). Any hazardous substances used by Tenant, its assigns, subtenants, agents or contractors at the Property will be processed, discharged, stored, treated, disposed of or managed by Tenant, its assigns, subtenants, agents or contractors at the Property in accordance with all federal, state and local environmental laws, regulations, codes or ordinances.

SECTION 2302. ENVIRONMENTAL INDEMNIFICATION BY TENANT. Tenant hereby agrees to indemnify, defend and hold Authority harmless from and against any and all claims, lawsuits, losses, liabilities, damages, and expenses (including without limitations cleanup costs and reasonable attorney's fees arising by reason of the aforesaid or an action against Tenant under this indemnity) resulting directly or indirectly from, out of or by reason of (i) any hazardous waste being located on the Property which is attributed to Tenant, its officers, directors, employees, agents, assigns, subtenants, guests, invitees, suppliers, contractors, or subcontractors, or (ii) any breach of Section 2301, above, or (iii) an Environmental Complaint occurring as a result of occupancy of the Property by Tenant, its subtenants or assigns and which is determined by applicable authorities and adjudication to be the responsibility of Tenant under this Lease. "Environmental Complaint" as used in the Lease means any complaint, order, citation or notice from a governmental entity with regard to any federal, state or local environmental laws, regulations, codes or ordinances.

SECTION 2303. ENVIRONMENTAL REPRESENTATIONS BY AUTHORITY. Authority represents and warrants to Tenant that no hazardous or toxic waste or substances exist on (or under) the Property and that the Property, upon the execution date of this Lease, complies with all applicable federal, state and local environmental laws, regulations, codes or ordinances. Authority represents and warrants that it will comply and will be in compliance in all material respects with all applicable environmental laws, ordinances, orders or decree of all federal, state and local environmental laws, regulations, codes or ordinances, as it relates to the Property with respect to ownership of the Property. Should hazardous substances be discovered in the Property that are not attributed to Tenant, its officers, directors, employees, agents, assigns, subtenants, guests, invitees, suppliers, contractors, or subcontractors, or should Authority breach its obligations under this Article, Authority shall take all actions necessary to comply with all environmental laws and shall, at Authority's sole cost and expense, perform any required remediation necessary to remedy the condition without unreasonable interference with Tenant's business. Authority hereby agrees, subject to and without waiving its right to assert any form of governmental and/or sovereign immunity as to any claims made in relation to this **Article 23**, including that set forth in section 768.28, Florida Statutes, to indemnify, defend and hold Tenant harmless from and against any and all claims, lawsuits, losses, liabilities, damages, and expenses (including without limitations cleanup costs and reasonable attorney's fees arising by reason of the aforesaid or an action against Tenant or Approved Subtenant under this indemnity) resulting directly or indirectly from, out of or by reason of (i) any hazardous waste being located on (or under) the Property prior to the date of this Lease, and (ii) any hazardous waste being located on (or under) the Property which was not caused or necessitated by the actions of Tenant, its officers, directors, employees, agents, assigns, subtenants, guests, invitees, suppliers, contractors, or subcontractors.

ARTICLE 24

RESERVED.

ARTICLE 25 **MORTGAGE INTEREST**

SECTION 2501. MORTGAGE INTEREST. Notwithstanding any provision of this Lease to the contrary, the provisions hereinafter set forth shall apply to the holder of record of a first mortgage on Tenant's leasehold interest in the Property:

(A) Tenant shall have the right to mortgage Tenant's interest under this Lease to a federal or state savings and loan association, institutional lenders, bank or trust company, insurance company, pension fund or trust, private individuals, corporations, companies or other lenders without obtaining the prior consent of Authority, subject, however, to the other terms and conditions of this Lease.

(B) If Tenant shall mortgage its leasehold interest and if the holder of the mortgage shall forward to Authority a copy of the recorded leasehold mortgage together with a written notice setting forth the name and address of the leasehold mortgagee, then, until the time that the leasehold mortgage shall be satisfied of record, the following provisions of this paragraph shall apply.

(C) When giving notice to Tenant with respect to any default under the provisions of this Lease, including but not limited to the failure of Tenant to pay rent, Authority will also serve a copy of such notice upon the leasehold mortgagee(s), which copy shall be sent by Authority by Certified Mail, Return Receipt Requested, to such mortgagee(s), which notice must specify the nature of each such default.

(D) The leasehold mortgagee, upon receipt from Authority of the notice referred to in **subparagraph (C)** above, shall have, in addition to any period of grace extended to Tenant under the terms and conditions of this Lease, a period of ninety (90) days within which to cure the default or cause the same to be cured, or to commence to cure such default and proceed diligently thereafter through completion of such cure if the default cannot be cured within the 90-day period; provided, however, that as to any default of Tenant for failure to pay rent, the leasehold mortgagee shall be given written notice of such default by certified mail by Authority, and the leasehold mortgagee shall have sixty (60) days from the date the notice of default was mailed within which to cure such default.

(E) Should the leasehold mortgagee foreclose its leasehold mortgage, Authority agrees to recognize the leasehold mortgagee as Tenant under this Lease for so long as the leasehold mortgagee holds this Lease as a result of a foreclosure of its mortgage or as a result of the assignment of this Lease in lieu of foreclosure, or otherwise, whereupon such leasehold mortgagee shall immediately become and remain liable under this Lease, except as provided below without having to obtain the consent of Authority to same. In such event, the term "Tenant" as used in this section means only the owner or holder of Tenant's interest for the time being so that in the event of a sale, assignment or other disposition of Tenant's interest in this Lease by the leasehold mortgagee, the mortgagee shall be entirely freed and released of all covenants and obligations of Tenant under this Lease from the time it transfers the leasehold interest to a third party.

(F) References in this Lease to acquisition of Tenant's interest in this Lease by the leasehold mortgagee shall be deemed to refer, where circumstances require, to acquisition of Tenant's interest in this Lease by any purchaser at a sale on foreclosure of the leasehold mortgage, and all provisions applicable to the leasehold mortgagee in such instance or instances shall also be applicable to any such purchaser.

(G) Any leasehold mortgage shall be specifically subject and subordinate to Authority's rights under this Lease. The foregoing shall not be deemed or construed to impose or establish upon Tenant's interest in this Lease

or upon the lien of any leasehold mortgage the superiority of any lien or encumbrance, including, without limitation, the lien of any fee mortgage, judgment or tax created directly or indirectly by, through or against Authority.

(H) In the event of any conflict or inconsistency between the terms of this Article and any other provision of this Lease, the terms of this Article shall control.

(I) Within ten (10) days after written request by Tenant or Tenant's leasehold mortgagee, or in the event that upon any sale, assignment or mortgage of Tenant's interest in this Lease by Tenant or Tenant's leasehold mortgagee, an estoppel certificate shall be required from Authority, Authority agrees to deliver in recordable form an estoppel certificate to any proposed leasehold mortgagee, purchaser or assignee, or to Tenant certifying (if such be the case): (i) the amount of rental and additional rental due under the Lease, if any, and the date to which rentals have been paid; (ii) that this Lease is in full force and effect; (iii) that Authority has no knowledge of any default under this Lease or if any default exists, specifying the nature of the default; and (iv) that there are no defenses or offsets which may be asserted by Authority against Tenant in respect of obligations pursuant to this Lease or if defenses or offsets exist specifying the nature of such offsets or defenses.

(J) Authority agrees that the leasehold mortgagee need not pay or otherwise satisfy any claim, the lien of which would be extinguished upon the conclusion of foreclosure proceedings brought by the leasehold mortgagee, nor shall leasehold mortgagee be required to cure any default relating to the insolvency, financial condition or bankruptcy of Tenant, nor shall Authority be entitled to terminate this Lease, accelerate the rent or exercise any other remedy under this Lease for any reason including as a consequence of Tenant's refusal, inability or failure to assume and affirm this Lease as an asset of Tenant's bankruptcy estate so long as, within ninety (90) days following the leasehold mortgagee's acquisition of title to the leasehold interest following a foreclosure of the leasehold mortgagee's mortgage on said interest, or through a Deed in Lieu of Foreclosure, the leasehold mortgagee commences to cure defaults required to be cured by it under the language above in this paragraph and thereafter diligently prosecutes the same, and any notice of termination theretofore given shall be void and of no force and effect. Authority further acknowledges and agrees that if, during the course of a bankruptcy proceeding involving Tenant as debtor, Tenant rejects or otherwise fails to assume and affirm this Lease as an asset of Tenant's bankruptcy estate, this Lease shall not terminate and the leasehold mortgagee may, within ninety (90) days of receipt of written notice from Authority of such rejection or other failure to assume this Lease and the irreversible release of such leasehold estate from Tenant's bankruptcy estate, assume this Lease by effecting a cure of the defaults required to be cured by the leasehold mortgagee under the language above in this paragraph and thereafter preserve the same. Authority further agrees that in the event the leasehold mortgagee forecloses its leasehold interest in the property or assigns Tenant's leasehold interest to a third party, Authority will not terminate the Lease solely on account of any

event of default relating to the insolvency, financial condition or bankruptcy of Tenant, including, without limitation, Tenant's refusal, inability or failure to assume and affirm the Lease as an asset of Tenant's bankruptcy estate, in which event, Authority shall recognize the leasehold mortgagee as Tenant under the Lease. Authority further agrees that the leasehold mortgagee may, pending foreclosure of its mortgage, take possession of the Property by and through its representative or receiver, as the leasehold mortgagee may elect and, provided it does so in accordance with the terms and provisions of the Lease, administer the Property as if it were Tenant thereunder.

(K) If Tenant, or any trustee of Tenant, shall reject the Lease pursuant to Section 365(h) of the Bankruptcy Code, 11 U.S.C. § 101, et seq (the "Bankruptcy Code"), (i) Tenant shall without further act or deed be deemed to have elected under Section 365(h) (1) of the Bankruptcy Code to remain in possession of the Property for the balance of the Term of the Lease, (ii) any exercise or attempted exercise by Tenant of a right to treat the Lease as terminated under Section 365(h)(1) of the Bankruptcy Code shall be void and (iii) neither the Mortgage nor any other aspect of the Loan shall be affected or impaired by rejection of the Lease. (For the purposes of Section 365(h) of the Bankruptcy Code, the term "possession" shall mean the right to possession of the Property granted to Tenant under the Lease notwithstanding that all or part of such Property shall have been subleased.)

(L) If, notwithstanding the provisions of **subparagraph (J)** above, the leasehold mortgagee reasonably determines that a new lease will be necessary to give legal or practical effect to the unimpaired or unaffected continuation of the leasehold mortgage, Authority will negotiate with the leasehold mortgagee and attempt to agree upon and enter into a new lease ("New Lease") of the Property. In the event of termination of the Lease as a result of Tenant's default, or otherwise, without the prior written consent of leasehold mortgagee, Authority shall, in addition to providing the notices of default and termination as required by **subparagraph (C)** above, provide the leasehold mortgagee with written notice that the Lease has been terminated together with a statement of all sums which would at the time be due under the Lease, but for such termination, and of all other defaults, if any, then known to Authority ("Notice of Delinquency"). Authority agrees to negotiate and, if accord is reached, enter into a New Lease of the Property with the leasehold mortgagee or its designee for the remainder of the term of the Lease effective, as of the date of termination, at the rent and additional rent, and upon the terms, covenants and conditions (including all options to renew but excluding requirements which are not applicable or which have already been fulfilled) of the Lease, provided:

(i) leasehold mortgagee shall make written request upon Authority for such New Lease within sixty (60) days after the date leasehold mortgagee receives Authority's Notice of Delinquency;

(ii) leasehold mortgagee or its designee shall pay or cause to be paid to Authority at the time of the execution and delivery of such New Lease, any and all sums which would at the time of execution and delivery

thereof be due pursuant to the Lease but for such termination and, in addition thereto, all reasonable expenses, including reasonable attorney fees, which Authority shall have incurred by reason of termination and the execution and delivery of the New Lease and which have not otherwise been received by Authority from Tenant or other parties in interest under Tenant;

(iii) leasehold mortgagee or its designee shall agree to remedy any of Tenant's defaults of which leasehold mortgagee was notified by Authority's Notice of Delinquency and which are reasonably susceptible of being so cured by leasehold mortgagee or its designee;

(iv) any New Lease made pursuant to this subparagraph shall be prior to any mortgage or other lien, charge, or encumbrance on the fee of the Property and Tenant under such New Lease shall have the same right, title and interest in and to the Property and the buildings and improvements thereon as Tenant had under the Lease;

(v) Tenant under any such New Lease shall be liable to perform the obligations imposed on Tenant by such New Lease only during the period such person has ownership of such leasehold estate.

(M) In the event the leasehold mortgagee becomes the legal owner and holder of the leasehold estate under the Lease by foreclosure of its leasehold mortgage, or as a result of an assignment of the Lease in lieu of foreclosure (which assignment is hereby consented to by Authority), or in the event leasehold mortgagee is granted a New Lease pursuant to **subparagraph L** above, Authority hereby agrees that upon receipt of a written application for consent to the assignment of Lease from either Tenant or leasehold mortgagee to a new lessee to whom leasehold mortgagee desires to transfer its interest, Authority will execute a written consent to such assignment provided there is no outstanding default with respect to the payment of rental under the Lease. Authority further agrees that, upon becoming the owner and holder of the leasehold estate, leasehold mortgagee shall have all rights and privileges of Tenant. Further, Authority agrees that upon acquisition of the leasehold estate by leasehold mortgagee, or its assigns, any default which is not reasonably capable of being cured by leasehold mortgagee, or which is personal to leasehold mortgagee, shall not be required to be cured by leasehold mortgagee or its assigns.

(N) In the event that leasehold mortgagee shall acquire the interest of Tenant under the Lease and, in accordance with the foregoing subparagraph, assign such interest to a successor lessee, upon such assignment leasehold mortgagee shall thereupon be relieved of any further liability under the Lease.

(O) To the extent required pursuant to the provisions of any mortgage encumbering the Property or the leasehold created hereunder, this Lease may not be amended without prior written consent of leasehold mortgagee.

(P) Authority and Tenant shall cooperate in including in this Lease by suitable amendment from time to time any provision which may reasonably be requested by a proposed leasehold mortgagee for the purpose of

implementing the mortgagee-protection provisions contained in the Lease and allowing such mortgagee reasonable means to protect or preserve the lien of the leasehold on the occurrence of a default under the terms of this Lease. Authority and Tenant each agree to execute and deliver (and to acknowledge, if necessary, for recording purposes) any agreement necessary to affect any such amendment; provided, however, that any such amendment shall not in any way affect the term or rent under this Lease, nor otherwise in any material respect adversely affect any rights of Authority under this Lease.

SECTION 2502. ALTERNATIVE FINANCING. Notwithstanding any provision of this Lease to the contrary, the Tenant or its subtenant(s) may obtain private financing, opportunity zone funding, or other forms of funding and Authority agrees to reasonably accommodate any additional notice or appropriate agreements to facilitate such funding agreements so long as such agreement shall not in any way affect the term or rent under this Lease, nor otherwise in any material respect adversely affect any rights of Authority under this Lease or cause Authority to incur any costs or expenses. Further, Authority shall negotiate and agree to reasonable amendments to the Lease consistent with the purpose and intent set out herein to facilitate the financing.

ARTICLE 26 **ATTORNEYS' FEES**

If any legal action or other proceeding is commenced in relation to this Lease or any documents incidental thereto and/or the Property, the prevailing party shall be entitled to recover its reasonable attorneys' fees and costs incurred in connection with such action or proceeding from the non-prevailing party, including all reasonable attorneys' fees and costs incurred on appeal, in litigating entitlement to and/or amount of attorneys' fees and costs to be awarded and in connection with the prevailing party's efforts to collect on any judgment. The phrase "prevailing party" shall include a party who receives substantially the relief desired whether by dismissal, summary judgment, judgment or otherwise. The provisions of this section shall survive the termination of this Lease.

ARTICLE 27 **OTHER PROVISIONS**

SECTION 2701. REASONABLENESS AND GOOD FAITH. Except to the extent expressly set forth or limited in this Lease otherwise, whenever this Lease grants the Authority or Tenant the right to take action, exercise discretion, establish rules and regulations, make allocations, or other determinations, or otherwise exercise rights or fulfill obligations, the Authority and Tenant shall act reasonably and in good faith and take no action that might result in the frustration of the reasonable expectations of a sophisticated landlord and

sophisticated tenant concerning the benefits to be enjoyed under this Lease.

SECTION 2702. FORCE MAJEURE. Except as provided below, any prevention, delay or stoppage attributable to strikes, lockouts, labor disputes, hurricanes, floods, earthquakes, tornadoes, or other natural disasters, acts of God, civil commotion, terrorism, war, fire or other casualty, and other causes beyond the reasonable control of the party obligated to perform (collectively, the “Force Majeure”) will excuse the performance of that party for a period equal to the duration of the prevention, delay or stoppage. If, therefore, this Lease specifies a time period for performance of an obligation of either party, a delay that a Force Majeure causes will extend the period within which the party must complete its performance.

SECTION 2703. HEADINGS. Any headings preceding the text of any articles, paragraphs or sections of this Lease shall be solely for convenience of reference and shall not constitute a part of this Lease, nor shall they affect its meaning, construction or effect.

SECTION 2704. BINDING EFFECT. The terms, conditions and covenants of this Lease shall inure to the benefit of and be binding upon the parties hereto and their successors and assigns. This provision shall not constitute a waiver of any conditions prohibiting assignment or subletting.

SECTION 2705. FEDERAL SUBORDINATION. This Lease shall be subordinate to the provisions of any existing agreements between the Authority and the United States of America that have been provided to the Tenant relative to the operation and maintenance of the Airport, the execution of which has been or may be required as a condition precedent to the expenditure of federal funds for the development of the Airport.

SECTION 2706. RIGHTS RESERVED. Rights not specifically granted the Tenant by this Lease are reserved to the Authority.

SECTION 2707. NO WAIVER. There shall be no waiver of the right of either party to demand strict performance of any of the provisions, terms and covenants of this Lease nor shall there be any waiver of any breach, default or non-performance hereof by either party, unless such waiver is explicitly made in writing by the other party. Any previous waiver or course of dealing shall not affect the right of either party to demand strict performance of the provisions, terms and covenants of this Lease with respect to any subsequent event or occurrence of any subsequent breach, default or nonperformance hereof by the other party.

SECTION 2708. SEVERABILITY. If any provision of this Lease or the application thereof to either party to this Lease is held invalid by a court of competent jurisdiction, such invalidity shall not affect other provisions of this Lease which can be given effect without the invalid provision, and to this end, the provisions of this Lease are severable.

SECTION 2709. PAYMENT OF TAXES. If applicable, Tenant shall pay all taxes and other costs lawfully assessed against its leasehold interests in the Property and its interest in the Improvements, other improvements and its operations under this Lease; provided, however, Tenant shall not be deemed to be in default of its obligations hereunder for failure to pay such taxes pending the outcome of any legal proceedings instituted to determine the validity of such taxes or amounts, if and only if such legal proceedings stay Tenant's obligations to pay such taxes pending the case outcome. Failure to pay the taxes, if any, determined by the court of applicable authorities upon the final unappealable conclusion of such legal proceedings against Tenant and the continuation of that failure for more than the applicable grace period established in [Article 6](#) shall constitute a default.

SECTION 2710. INTERPRETATION OF LEASE. This Lease is the result of negotiation between the parties hereto and has been typed/printed by one party for the convenience of both parties, and the parties covenant that this Lease shall not be construed in favor of or against any of the parties hereto or against the "drafter" hereof.

SECTION 2711. NO AGENCY. Nothing contained herein shall be deemed or construed by the parties hereto or by any third party as creating the relationship of principal and agent, partners, joint venturers, or any other similar such relationship between the parties hereto. It is understood and agreed that neither the method of computation of rentals, fees and charges, nor any other provisions contained herein, nor any acts of the parties hereto creates a relationship other than the relationship of landlord and tenant.

SECTION 2712. RIGHTS NON-EXCLUSIVE. Notwithstanding anything herein contained that may be or appear to the contrary, the rights, privileges and licenses granted under this Lease, except in the Property and Improvements and as to Tenant's rights under [Article 24](#), are "nonexclusive," and the Authority reserves the right to grant similar privileges to other persons, firms or corporations.

SECTION 2713. JURISDICTION AND VENUE. The parties acknowledge that a substantial portion of negotiation, anticipated performance and execution of this Lease occurred or shall occur in Brevard County, Florida, and that, therefore, each of the parties: (a) agrees that this Lease and all rights and obligations hereunder shall be governed by the laws of the State of Florida without regard to its conflict of law provisions; (b) agrees that any suit, action or legal proceeding arising out of or relating to this Lease shall be brought exclusively in the courts of record of the State of Florida in Brevard County, Florida; or in the federal courts in the Middle District of Florida, (c) consents to the jurisdiction of each such court in any such suit, action or proceeding; and (d) waives any objection which it may have to the laying of venue of any such suit, action or proceeding in any such courts.

SECTION 2714. ENTIRETY OF AGREEMENT. The parties hereto agree that this Lease sets forth the entire agreement between the parties, and there are no promises or understandings other than those stated herein. None of the provisions, terms and conditions contained in this Lease may be added to, modified, superseded or otherwise altered, except as may be specifically authorized herein or by written instrument executed by the parties hereto.

SECTION 2715. JURY WAIVER. EACH PARTY HEREBY COVENANTS AND AGREES THAT IN ANY LITIGATION, SUIT, ACTION, COUNTERCLAIM, OR PROCEEDINGS, WHETHER AT LAW OR IN EQUITY, WHICH ARISES OUT OF, CONCERNS, OR RELATES TO THIS LEASE, ANY AND ALL TRANSACTIONS CONTEMPLATED HEREUNDER, THE PERFORMANCE HEREOF, OR THE RELATIONSHIP CREATED HEREBY, TRIAL SHALL BE TO A COURT AND NOT TO A JURY. EACH PARTY HEREBY IRREVOCABLY WAIVES ANY RIGHT IT MAY HAVE TO A TRIAL BY JURY. EITHER PARTY MAY FILE AN ORIGINAL COUNTERPART OR COPY OF THIS LEASE WITH ANY COURT AS WRITTEN EVIDENCE OF THE CONSENT OF THE PARTIES HERETO OF THE WAIVER OF THEIR RIGHT TO TRIAL BY JURY.

ARTICLE 28 **REQUIRED FEDERAL PROVISIONS**

SECTION 2801. ADDITIONAL CIVIL RIGHTS PROVISION. Tenant agrees to comply with pertinent statutes, Executive Orders and such rules as are promulgated to ensure that no person shall, on the grounds of race, creed, color, national origin, sex, age, or disability be excluded from participating in any activity conducted with or benefiting from Federal assistance. If Tenant transfers its obligation to another, the transferee is obligated in the same manner as Tenant. This provision obligates Tenant for the period during which the property is used and/or possessed by Tenant and the Airport remains obligated to the Federal Aviation Administration. This provision is in addition to that required by Title VI of the Civil Rights Act of 1964.

SECTION 2802. REQUIRED CLAUSE FOR TRANSFER OF REAL PROPERTY. The following clauses will be included in deeds, licenses, permits, or similar instruments/agreements entered into by Authority pursuant to the provisions of the Airport Improvement Program grant assurances.

- (A) The Tenant for itself, its successors in interest and its assigns, as a part of the consideration for this Lease, does hereby covenant and agree as a covenant running with the land that in the event facilities are constructed, maintained, or otherwise operated on the property described in this Lease for a purpose for which a Federal Aviation Administration activity, facility, or program is extended

or for another purpose involving the provision of similar services or benefits, the Tenant will maintain and operate such facilities and services in compliance with all requirements imposed by the Nondiscrimination Acts and Regulations listed in the Pertinent List of Nondiscrimination Authorities (as may be amended) such that no person on the grounds of race, color, or national origin, will be excluded from participation in, denied the benefits of, or be otherwise subjected to discrimination in the use of said facilities..

- (B) With respect to this Lease, in the event of breach of any of the above nondiscrimination covenants, Authority will have the right to terminate the Lease and to enter, re-enter, and repossess said Property and the facilities thereon, including without limitation the Improvements, and hold the same as if the Lease had never been made or issued.

SECTION 2803. TITLE VI LIST OF PERTINENT NONDISCRIMINATION ACTS AND AUTHORITIES. During the performance of this Lease, Tenant, for itself, its assignees, and successors in interest, agrees to comply with the following nondiscrimination statutes and authorities:

- Title VI of the Civil Rights Act of 1964 (42 USC § 2000d *et seq.*, 78 stat. 252) (prohibits discrimination on the basis of race, color, national origin);
- 49 CFR part 21 (Non-discrimination in Federally-assisted programs of the Department of Transportation—Effectuation of Title VI of the Civil Rights Act of 1964);
- The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, (42 USC § 4601) (prohibits unfair treatment of persons displaced or whose property has been acquired because of Federal or Federal-aid programs and projects);
- Section 504 of the Rehabilitation Act of 1973 (29 USC § 794 *et seq.*), as amended (prohibits discrimination on the basis of disability); and 49 CFR part 27;
- The Age Discrimination Act of 1975, as amended (42 USC § 6101 *et seq.*) (prohibits discrimination on the basis of age);
- Airport and Airway Improvement Act of 1982 (49 USC § 471, Section 47123), as amended (prohibits discrimination based on race, creed, color, national origin, or sex);
- The Civil Rights Restoration Act of 1987 (PL 100-209) (broadened the scope, coverage and applicability of Title VI of the Civil Rights Act of 1964, the Age Discrimination Act of 1975 and Section 504 of the Rehabilitation Act of 1973, by expanding the definition of the terms "programs or activities" to include all of the programs or activities of the Federal-aid recipients, sub-recipients and contractors, whether such programs or activities are Federally funded or not);

- Titles II and III of the Americans with Disabilities Act of 1990, which prohibit discrimination on the basis of disability in the operation of public entities, public and private transportation systems, places of public accommodation, and certain testing entities (42 USC §§ 12131 — 12189) as implemented by U.S. Department of Transportation regulations at 49 CFR parts 37 and 38;
- The Federal Aviation Administration's Nondiscrimination statute (49 USC § 47123) (prohibits discrimination on the basis of race, color, national origin, and sex);
- Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, which ensures nondiscrimination against minority populations by discouraging programs, policies, and activities with disproportionately high and adverse human health or environmental effects on minority and low-income populations;
- Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency, and resulting agency guidance, national origin discrimination includes discrimination because of limited English proficiency (LEP). To ensure compliance with Title VI, you must take reasonable steps to ensure that LEP persons have meaningful access to your programs (70 Fed. Reg. at 74087 to 74100); and
- Title IX of the Education Amendments of 1972, as amended, which prohibits you from discriminating because of sex in education programs or activities (20 USC 1681 et seq).

ARTICLE 29

FLORIDA SPECIFIC PROVISIONS

RADON IS A NATURALLY OCCURRING RADIOACTIVE GAS THAT, WHEN IT HAS ACCUMULATED IN A BUILDING IN SUFFICIENT QUANTITIES, MAY PRESENT HEALTH RISKS TO PERSONS WHO ARE EXPOSED TO IT OVER TIME. LEVELS OF RADON THAT EXCEED FEDERAL AND STATE GUIDELINES HAVE BEEN FOUND IN BUILDINGS IN FLORIDA. ADDITIONAL INFORMATION REGARDING RADON AND RADON TESTING MAY BE OBTAINED FROM YOUR COUNTY PUBLIC HEALTH UNIT. [NOTE: THIS PARAGRAPH IS PROVIDED FOR INFORMATIONAL PURPOSES PURSUANT TO SECTION 404.056(8), FLORIDA STATUTES, (1988).]

ARTICLE 30

FOREIGN TRADE ZONE

RESERVED.

ARTICLE 31
BOND FINANCING

If Tenant elects to seek financing for the Improvements through the issuance of Industrial Revenue Bonds or other taxable or tax-exempt bonds or notes ("Bonds"), the Authority agrees to fully support Tenant in its effort and assist to obtain financing for the project as long as the Authority is not obligated as to such Bonds and is not required to incur expenses related thereto. Further, if the issuance of Bonds for the project or any portion thereof requires it, Authority shall negotiate and agree to reasonable amendments to the Lease consistent with the purpose and intent set out herein to facilitate the issuance and sale of such Bonds.

[SIGNATURES ON NEXT PAGE]

SIGNATURES

IN WITNESS WHEREOF the parties hereto have set their hands and seals the date and year first above written.

Signed, Sealed and Delivered
in the presence of:

AUTHORITY:
TITUSVILLE-COCOA AIRPORT AUTHORITY

Witness

By: _____
Kevin Daugherty, AAE
Director of Airports

Witness

Attest: _____
Name: _____
Position: _____
(corporate seal)

TENANT:
321 LAUNCH LLC

Witness

By: _____

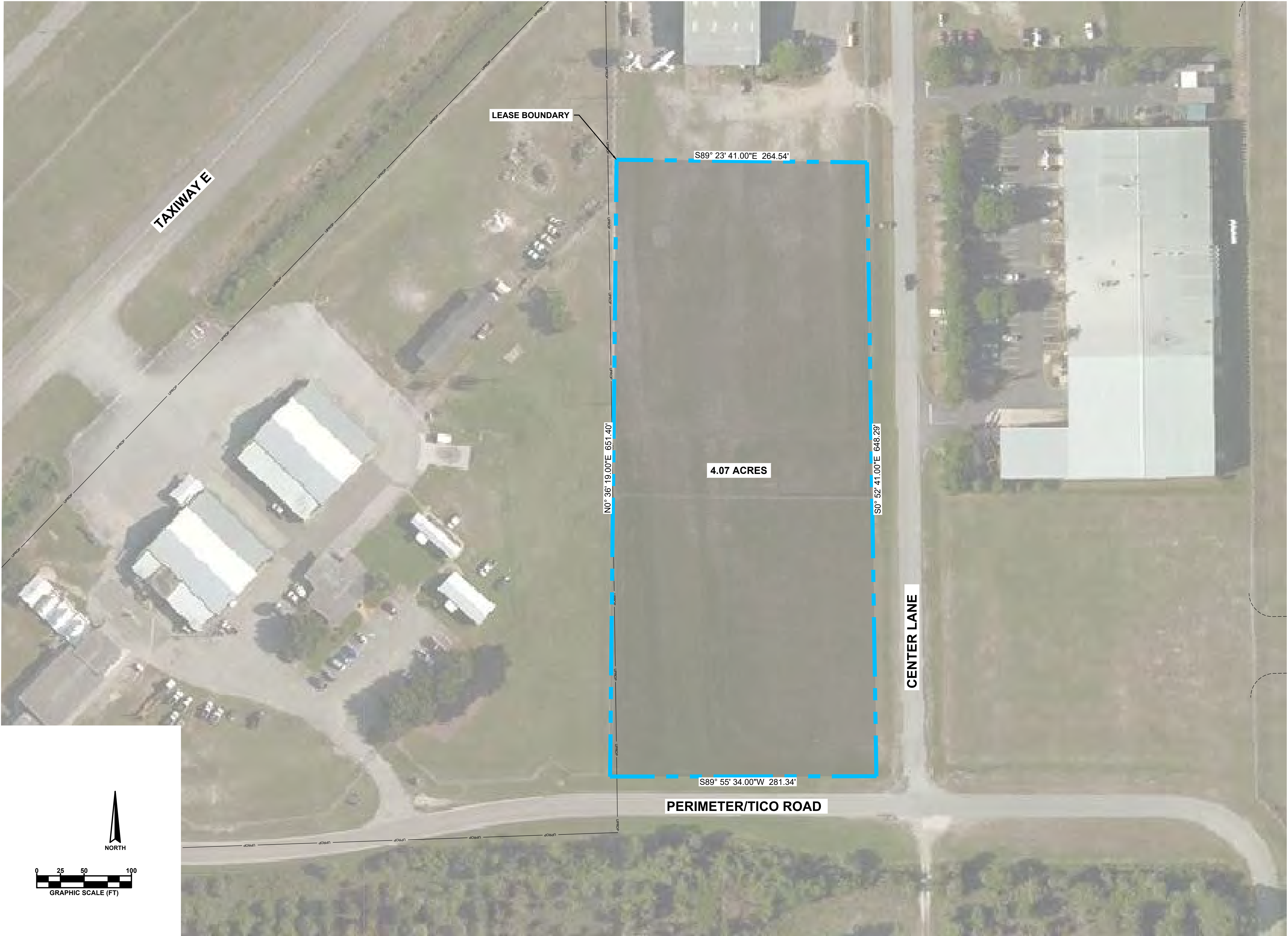
Printed Name: Cheree A. Kiernan

Printed Title: Chief Executive Officer

Witness

Attest: _____
(corporate seal)

EXHIBIT A
DESCRIPTION OF PROPERTY



NOTE

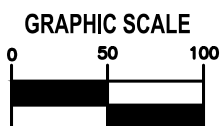
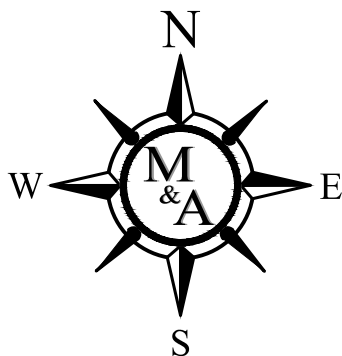
THE INFORMATION SHOWN ON THIS EXHIBIT IS FOR REFERENCE ONLY, AND IS NOT EXPECTED TO EXACTLY REFLECT THE LEGAL PARCEL LIMITS.

SKETCH OF LEGAL DESCRIPTION EXHIBIT "A"

SPACE COAST
REGIONAL AIRPORT
PARCEL ID:
23-35-02-00-2

S89°23'41"E 264.54'

SECTION 2,
TOWNSHIP 23 SOUTH,
RANGE 35 EAST,
BREVARD COUNTY,
FLORIDA



(IN FEET)
1 INCH = 100 FEET

REFERENCE BEARING NOTE:
BEARINGS HEREON ARE
REFERRED TO A VALUE OF
N89°55'34"E FOR THE NORTH
LINE OF THE NORTHWEST 1/4
OF SECTION 11, TOWNSHIP 23
SOUTH, RANGE 35 EAST.

BREVARD COUNTY
PARCEL ID:
23-35-02-00-501
ORB 865, PG. 1002

SOUTHEAST CORNER OF
ORB 865, PG. 1002

**POINT OF
COMMENCEMENT**

SW CORNER SECTION 2
TOWNSHIP 23 SOUTH,
RANGE 35 EAST

SOUTH LINE OF ORB 865, PG. 1002

N89°55'34"E 976.33'

LEASE PARCEL:
177,346.12
SQUARE FEET,
OR 4.071 ACRES,
MORE OR LESS

N00°36'19"E 651.41'

EAST LINE OF ORB 865, PG. 1002

APPARENT NORTH R/W OF
PERIMETER RD

**POINT OF
BEGINNING**

S89°55'34"W 281.34'

PERIMETER RD
AKA TICO RD
R/W WIDTH VARIES

N00°36'19"E
77.09'

N00°36'19"E
35.92'

324.27'

REFERENCE BEARING: N89°55'34"E 5280.55'

WEST R/W

Q OF CENTER LANE

EAST R/W

CENTER LN

80' RIGHT-OF-WAY

S00°52'41"E 648.29'

LEASE PARCEL
PARCEL ID:
23-35-02-00-504
ORB 5351, PG. 153

SPACE COAST
REGIONAL AIRPORT
PARCEL ID:
23-35-02-00-2

40.0' 80.0' 40.0'

NORTH R/W OF
PERIMETER RD
ORB 5351, PG. 153

SOUTH LINE OF SECTION 2,
TOWNSHIP 23 SOUTH,
RANGE 35 EAST

SE CORNER SECTION 2

SKETCH NOT VALID WITHOUT SHEETS 1 THROUGH 2 INCLUSIVE
SHEET 1 OF 2

DRAWN: J. HUSSEY CHD. BY: CSB PROJECT: 2022-024 DWG.: 2020-024.DWG

CERTIFICATION

I HEREBY CERTIFY THAT THIS SKETCH WAS MADE UNDER MY RESPONSIBLE CHARGE AND MEETS THE STANDARDS OF PRACTICE AS SET FORTH BY THE BOARD OF PROFESSIONAL SURVEYORS AND MAPPERS IN CHAPTER 5J-17, FLORIDA ADMINISTRATIVE CODE, PURSUANT TO SECTION 472.027 OF THE FLORIDA STATUTES.

CHRISTOPHER S. BOWERS P.S.M.
SIGNING DATE: 3/21/2022 FLA. CERT. NO. 5990

THIS SKETCH HAS BEEN PREPARED FOR THE EXCLUSIVE USE OF THE PERSON, PERSONS OR ORGANIZATION IDENTIFIED BELOW AND ITS CERTIFICATION IS NON-TRANSFERABLE. ANY COPY HEREOF, TO BE CONSIDERED VALID, MUST BE EMBOSSED WITH THE ORIGINAL SIGNATURE & SEAL OF A REGISTERED SURVEYOR EMPLOYED BY THIS FIRM.

321Launch LLC

TITUSVILLE-COCOA AIRPORT AUTHORITY

EXHIBIT "A". SKETCH OF LEGAL DESCRIPTION ONLY.
NOT A BOUNDARY SURVEY.

**MORGAN
& Associates**

Consulting Engineers, Inc.
504 N Harbor City Blvd. Melbourne, FL 32935
Phone (321) 751-6088 Fax (321) 751-6089 - LB 7040

SKETCH OF LEGAL DESCRIPTION EXHIBIT "A"
SECTION 2, TOWNSHIP 23 SOUTH, RANGE 35 EAST, BREVARD COUNTY, FLORIDA

LEGAL DESCRIPTION (LEASE PARCEL):

A PARCEL OF LAND LYING IN THE SOUTHWEST QUARTER OF SECTION 2, TOWNSHIP 23 SOUTH, RANGE 35 EAST, BREVARD COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT THE SOUTHWEST CORNER OF SECTION 2, TOWNSHIP 23 SOUTH, RANGE 35 EAST, AND RUN N89°55'34"E A DISTANCE OF 976.33 FEET; THENCE RUN N00°36'19"E A DISTANCE OF 35.92 FEET TO THE SOUTHEAST CORNER OF THE LANDS DESCRIBED IN OFFICIAL RECORDS BOOK 865, PAGE 1002, PUBLIC RECORDS OF BREVARD COUNTY, FLORIDA; THENCE CONTINUE N00°36'19"E A DISTANCE OF 77.09 FEET TO THE NORTH RIGHT-OF-WAY OF PERIMETER ROAD AS CURRENTLY OCCUPIED (SAID ROAD OF VARYING WIDTH, SAID ROAD ALSO BEING KNOWN AS TICO ROAD), SAID POINT BEING THE POINT OF BEGINNING OF THE FOLLOWING DESCRIBED PARCEL OF LAND:

THENCE CONTINUE N00°36'19"E ALONG THE EAST LINE OF THE LANDS DESCRIBED IN OFFICIAL RECORDS BOOK 865, PAGE 1002, PUBLIC RECORDS OF BREVARD COUNTY, FLORIDA, A DISTANCE OF 651.41 FEET; THENCE DEPARTING SAID EAST LINE, RUN S89°23'41"E A DISTANCE OF 264.54 FEET TO THE WEST RIGHT-OF-WAY OF CENTER LANE (SAID ROAD HAVING A WIDTH OF 80.00 FEET); THENCE RUN S00°52'41"E ALONG SAID WEST RIGHT-OF-WAY OF CENTER LANE A DISTANCE OF 648.29 FEET TO THE NORTH RIGHT-OF-WAY OF PERIMETER ROAD AS CURRENTLY OCCUPIED; THENCE RUN S89°55'34"W ALONG SAID NORTH RIGHT-OF-WAY OF PERIMETER ROAD A DISTANCE OF 281.34 FEET TO THE POINT OF BEGINNING.

CONTAINING: 177,346.12 SQUARE FEET, OR 4.071 ACRES, MORE OR LESS.

**SKETCH NOT VALID WITHOUT
SHEETS 1 THROUGH 2 INCLUSIVE
SHEET 2 OF 2**

DRAWN: J. HUSSEY | CHD. BY: CSB | PROJECT: 2022-024 | DWG.: 2020-024.DWG

CERTIFICATION

I HEREBY CERTIFY THAT THIS SKETCH WAS MADE UNDER MY RESPONSIBLE CHARGE AND MEETS THE STANDARDS OF PRACTICE AS SET FORTH BY THE BOARD OF PROFESSIONAL SURVEYORS AND MAPPERS IN CHAPTER 5J-17, FLORIDA ADMINISTRATIVE CODE, PURSUANT TO SECTION 472.027 OF THE FLORIDA STATUTES.

CHRISTOPHER S. BOWERS P.S.M.

SIGNING DATE: 3/21/2022

FLA. CERT. NO. 5990

THIS SKETCH HAS BEEN PREPARED FOR THE EXCLUSIVE USE OF THE PERSON, PERSONS OR ORGANIZATION IDENTIFIED BELOW AND ITS CERTIFICATION IS NON-TRANSFERABLE. ANY COPY HEREOF, TO BE CONSIDERED VALID, MUST BE EMBOSSED WITH THE ORIGINAL SIGNATURE & SEAL OF A REGISTERED SURVEYOR EMPLOYED BY THIS FIRM.

321Launch LLC

TITUSVILLE-COCOA AIRPORT AUTHORITY

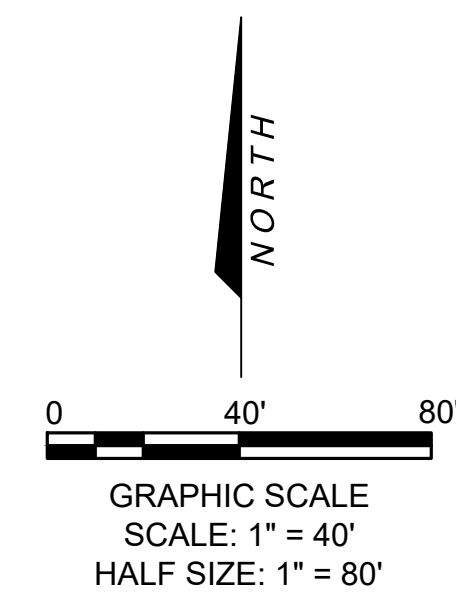
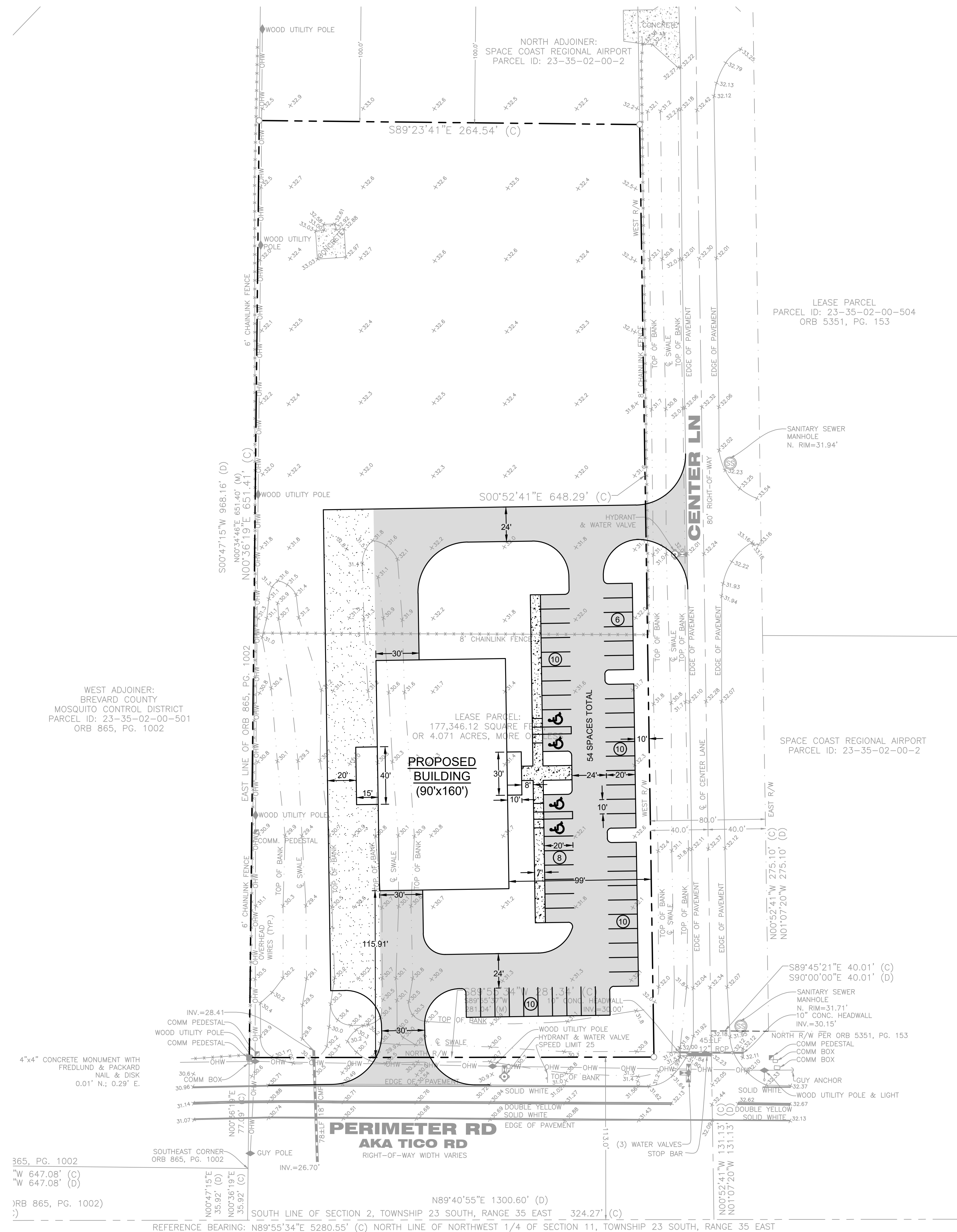
EXHIBIT "A". SKETCH OF LEGAL DESCRIPTION ONLY.
NOT A BOUNDARY SURVEY.

**MORGAN
& Associates**

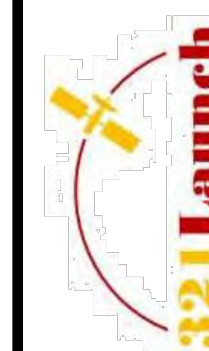
Consulting Engineers, Inc.

504 N Harbor City Blvd. Melbourne, FL 32935
Phone (321) 751-6088 Fax (321) 751-6089 - LB 7040

EXHIBIT B
TENANT'S SITE PLAN



A
A
A
A
A
A
A
A
Date:
06/03/2022
Drawn:
DD
Checked:
AK
Date:
06/03/2022



CONCEPTUAL SITE PLAN

**MORGAN
& Associates**
Consulting Engineers, Inc.

Project #: 2022-024

Drawing #: CIVIL

Scale:

Scale.
Horiz. 1" = 40'

<u>Vert.</u>	N/A
--------------	-----

Sheet #:

Sheet 11 of 11

10

CIT

Sheet 1 of

(

1. **Introduction**

Steven J. Morgan P.E. FL. R
Andreas H. Kirbach P.E. FL. M

1 **2** **3** **4** **5** **6** **7** **8** **9** **10** **11** **12** **13** **14** **15** **16** **17** **18** **19** **20** **21** **22** **23** **24** **25** **26** **27** **28** **29** **30** **31** **32** **33** **34** **35** **36** **37** **38** **39** **40** **41** **42** **43** **44** **45** **46** **47** **48** **49** **50** **51** **52** **53** **54** **55** **56** **57** **58** **59** **60** **61** **62** **63** **64** **65** **66** **67** **68** **69** **70** **71** **72** **73** **74** **75** **76** **77** **78** **79** **80** **81** **82** **83** **84** **85** **86** **87** **88** **89** **90** **91** **92** **93** **94** **95** **96** **97** **98** **99** **100** **101** **102** **103** **104** **105** **106** **107** **108** **109** **110** **111** **112** **113** **114** **115** **116** **117** **118** **119** **120** **121** **122** **123** **124** **125** **126** **127** **128** **129** **130** **131** **132** **133** **134** **135** **136** **137** **138** **139** **140** **141** **142** **143** **144** **145** **146** **147** **148** **149** **150** **151** **152** **153** **154** **155** **156** **157** **158** **159** **160** **161** **162** **163** **164** **165** **166** **167** **168** **169** **170** **171** **172** **173** **174** **175** **176** **177** **178** **179** **180** **181** **182** **183** **184** **185** **186** **187** **188** **189** **190** **191** **192** **193** **194** **195** **196** **197** **198** **199** **200** **201** **202** **203** **204** **205** **206** **207** **208** **209** **210** **211** **212** **213** **214** **215** **216** **217** **218** **219** **220** **221** **222** **223** **224** **225** **226** **227** **228** **229** **230** **231** **232** **233** **234** **235** **236** **237** **238** **239** **240** **241** **242** **243** **244** **245** **246** **247** **248** **249** **250** **251** **252** **253** **254** **255** **256** **257** **258** **259** **260** **261** **262** **263** **264** **265** **266** **267** **268** **269** **270** **271** **272** **273** **274** **275** **276** **277** **278** **279** **280** **281** **282** **283** **284** **285** **286** **287** **288** **289** **290** **291** **292** **293** **294** **295** **296** **297** **298** **299** **300** **301** **302** **303** **304** **305** **306** **307** **308** **309** **310** **311** **312** **313** **314** **315** **316** **317** **318** **319** **320** **321** **322** **323** **324** **325** **326** **327** **328** **329** **330** **331** **332** **333** **334** **335** **336** **337** **338** **339** **340** **341** **342** **343** **344** **345** **346** **347** **348** **349** **350** **351** **352** **353** **354** **355** **356** **357** **358** **359** **360** **361** **362** **363** **364** **365** **366** **367** **368** **369** **370** **371** **372** **373** **374** **375** **376** **377** **378** **379** **380** **381** **382** **383** **384** **385** **386** **387** **388** **389** **390** **391** **392** **393** **394** **395** **396** **397** **398** **399** **400** **401** **402** **403** **404** **405** **406** **407** **408** **409** **410** **411** **412** **413** **414** **415** **416** **417** **418** **419** **420** **421** **422** **423** **424** **425** **426** **427** **428** **429** **430** **431** **432** **433** **434** **435** **436** **437** **438** **439** **440** **441** **442** **443** **444** **445** **446** **447** **448** **449** **450** **451** **452** **453** **454** **455** **456** **457** **458** **459** **460** **461** **462** **463** **464** **465** **466** **467**

Date: _____

PRELIMINARY

EXHIBIT C

RESERVED.

EXHIBIT D
RENT COMMENCEMENT CERTIFICATE

The TITUSVILLE-COCOA AIRPORT AUTHORITY and 321 LAUNCH LLC hereby agree to the delivery and acceptance of the Property, and that _____, 20__, shall be the “Rent Commencement Date”.

EXECUTED BY THE AUTHORITY, this [DATE] day of [MONTH], [YEAR].

TITUSVILLE-COCOA AIRPORT AUTHORITY

Witness

By: _____
Kevin Daugherty, AAE
Director of Airports

Witness

EXECUTED BY TENANT, this [DATE] day of [MONTH], [YEAR].

321 LAUNCH LLC

Witness

By: _____
Printed Name: Cheree A. Kiernan
Printed Title: Chief Executive Officer

Witness

EXHIBIT E
RULES AND REGULATIONS AND MINIMUM STANDARDS

TITUSVILLE - COCOA AIRPORT AUTHORITY



SPACE COAST REGIONAL AIRPORT

MINIMUM STANDARD REQUIREMENTS FOR AIRPORT AERONAUTICAL SERVICES

November 19, 2002

RECORD OF REVISIONS

<u>Revision Number</u>	<u>Date of Revision*</u>	<u>Revised Sections</u>
1.	09-11-03	Definitions – Special Event
2.	09-11-03	Section 4 – General Requirements - 7. Insurance Requirements, Part k and l
3.	09-11-03	Section 19 – Other Aviation Organizations

*Date of Revision reflects date approved by Airport Authority Board

TABLE OF CONTENTS

SECTION 1 - DEFINITIONS	5
SECTION 2 - GENERAL INFORMATION	10
SECTION 3 - APPLICATION PROCEDURES	12
SECTION 4 - GENERAL REQUIREMENTS	14
SECTION 5 - MINIMUM STANDARDS	18
SECTION 6 - FIXED BASE OPERATOR	19
SECTION 7 - SPECIALIZED FIXED BASE OPERATOR - AIRCRAFT MAINTENANCE AND REPAIR	22
SECTION 8 - SPECIALIZED FIXED BASE OPERATOR - AIRCRAFT SALES	23
SECTION 9 - SPECIALIZED FIXED BASE OPERATOR - AIRCRAFT RENTAL	25
SECTION 10 - SPECIALIZED FIXED BASE OPERATOR - FLIGHT TRAINING	26
SECTION 11 - SPECIALIZED FIXED BASE OPERATOR - AVIONICS, INSTRUMENTS, PROPELLER REPAIR STATION	27
SECTION 12 - SPECIALIZED FIXED BASE OPERATOR - AIRCRAFT CHARTER AND AIR TAXI	28
SECTION 13 - SPECIALIZED FIXED BASE OPERATOR - AIRCRAFT STORAGE	29
SECTION 14 - SPECIALIZED FIXED BASE OPERATOR - SPECIALIZED COMMERCIAL FLYING SERVICES	30
SECTION 15 - SPECIALIZED FIXED BASE OPERATOR - MULTIPLE SPECIALIZED AERONAUTICAL SERVICES	31
SECTION 16 - SPECIALIZED FIXED BASE OPERATOR - OTHER AERONAUTICAL SERVICES	32
SECTION 17 - MINIMUM STANDARDS FOR PRIVATE CORPORATION OWNED NON-COMMERCIAL HANGAR AND AVIATION FUEL DISPENSING FACILITIES	33
SECTION 18 - FLYING CLUBS	35

SECTION 19 – OTHER AVIATION ORGANIZATIONS	36
APPENDIX “A” - APPLICATION FOR COMMERCIAL BUSINESSES.....	I
APPENDIX “B” – BUSINESS PLAN CRITERIA	VI
APPENDIX “C” – INSURANCE REQUIREMENTS	VII

SECTION 1 - DEFINITIONS

The following terms shall have the following meanings:

Aeronautical Service – any commercial activity or service conducted at the Airport that involves, makes possible, or is required for the operation of aircraft, or which contributes to or is required for the safety of such operations. These activities include, but are not limited to, air taxi and charter operations, aircraft fueling, aircraft storage, flight training, aircraft rental, aircraft sales, aircraft repair and maintenance, and any other activities, which because of their relationship to the operation of aircraft can appropriately be regarded as an “aeronautical service”.

Agreement – (Agreement, Lease, or Lease Agreement) – the written agreement between the Authority and an Operator specifying the terms and conditions under which the Operator may conduct commercial aviation activities. Such Agreement will recite the terms and conditions under which the activity will be conducted at the Airport including, but not limited to, term of the Agreement; rents, fees and charges to be paid; and the right and obligations of the respective parties.

Air Charter or Taxi – the commercial operation of providing air transportation of person(s) or property for hire by either on a charter basis or as an air taxi operator.

Aircraft – any device used or designed for navigation or flight in the air including, but not limited to, an airplane, sailplane, glider, helicopter, gyrocopter, ultra-light, balloon or blimp.

Aircraft Fuel – all flammable liquids composed of a mixture of selected hydrocarbons expressly manufactured and blended for the purpose of effectively and efficiently operating an internal combustion, jet, or turbine engine.

Aircraft Operation – an aircraft arrival at, or departure from, the Airport.

Aircraft Owner – a person or entity holding legal title to an aircraft, or any person having exclusive possession of an aircraft.

Aircraft Parking and Storage Areas – those hangar and apron locations of the Airport designated by the Executive Director for the parking and storage of aircraft.

Aircraft Rental – the commercial operation of renting or leasing aircraft to the public for compensation.

Aircraft Sales – the sale of new or used aircraft through brokerage, ownership, franchise, distributorship or licensed dealership.

Airframe and Power Plant Maintenance – the commercial operation of providing airframe and power plant services, which includes service, the repair, maintenance, inspection, constructing, and making of modifications and alterations to aircraft, aircraft engines, propellers and appliances including the removal of engines for major overhaul as defined in 14 CFR Part 43. This category of service also includes the sale of aircraft parts and accessories.

Airframe and Power Plant Mechanic (A&P) – a person who holds an aircraft mechanic certificate with both airframe and power plant ratings as authorized and described in 14 CFR Part 65.

Airport – all of the Airport owned or leased real or personal property, building, facilities and improvements within the boundaries of said Airport, as it presently exists or as it may exist when it is hereafter modified, expanded or developed. “Airport” includes all of its facilities as shown on the most current and future Airport Layout Plan (ALP).

Airport Layout Plan or ALP – the currently approved Airport Layout Plan depicting the physical layout of the Airport and identifying the location and configuration of current runways, taxiways, buildings, roadways, utilities, nav aids, etc.

Airport Movement Area (AMA) – the runways, taxiways and other areas of an airport that are utilized for taxiing, air taxiing, take-off and landing of aircraft.

Airport Operations Area or AOA – the area of the Airport used for aircraft landing, take-off, or surface maneuvering including the areas around hangars, navigation equipment and communication facilities.

Airport Reference Codes – *FAA Advisory Circular 150/5300-13 Airport Design* defines the Airport Reference Code (ARC) as “a coding system used to relate airport design criteria to the operational and physical characteristics of the airplanes intended to use the airport.” The ARC is used to determine design dimensions for the various separation and safety standards, Runway Protection Zones and Object Free Zones dimensions, surface gradients, and threshold siting standards, etc.

Apron – those areas of the Airport within the AOA designated for the loading, unloading, servicing, or parking of aircraft.

Authorized Areas of the Airport – means a common use area open to the Operator and all other similarly situated users of the Airport, or space under the exclusive control of the Authority or a tenant of the Authority in which the Operator is permitted to operate by the Authority or such tenant, as applicable.

Avionics Sales and Maintenance – the commercial operation of providing for the repair and service, or installation of aircraft radios, instruments and accessories. Such operation may include the sale of new or used aircraft radios, instruments and accessories.

Based Aircraft – an aircraft which the owner physically locates at the Airport for an undetermined period, and whenever absent from the Airport, its owner intends to return the aircraft to the Airport for long-term storage (i.e., more than 30 days).

Exclusive Right – a power, privilege, or other right excluding or debarring another from enjoying or exercising a like power, privilege or right. An Exclusive Right may be conferred either by express agreement, by imposition of unreasonable standards or requirements, or by any other means. Such a right conferred on one or more parties but excluding others from enjoying or exercising a similar right or rights would be an Exclusive Right. The granting of an

Exclusive Right to conduct an aeronautical activity on an airport developed or improved with federal funds is expressly forbidden by law.

Executive Director – means the chief executive officer of the Authority, or their designee.

Federal Aviation Administration (FAA) – the federal aviation agency established by the Federal Aviation Act of 1958, as amended, and re-established in 1967 under the Department of Transportation.

Federal Aviation Regulations (FAR) – regulations published by the FAA that governs the operation of aircraft, airways and airmen. Compliance with the FARs is mandatory. In 1996, all references to the FARs were changed to “14 CFR” (Title 14 of the Code of Federal Regulations).

Fixed Base Operator (FBO) – a “full service” commercial aeronautical business who is authorized to engage in the primary activity of aircraft refueling and a minimum of three (3) of the following secondary activities: airframe and power plant maintenance, flight training, aircraft rental, aircraft charter or air taxi, avionics sales and service, and aircraft storage/hangar rentals.

Flight Training – the commercial operation of instructing pilots in dual and solo flight, in fixed or rotary wing aircraft, and related ground school instruction as necessary to complete a FAA written pilot's examination and flight check ride for various categories of pilots licenses and ratings. Flight training shall also include any portion of a flight between two or more airports or other destinations where the primary purpose is to increase or maintain pilot or crew member proficiency.

Flying Club – a non-commercial and nonprofit entity organized for the purpose of providing its members with any number of aircraft for their personal use and enjoyment. Aircraft must be vested in the name of the flying club owners on a pro-rata share, and the club may not derive greater revenue from the use of the aircraft than the cost to operate, maintain and replace the aircraft.

Fueling or Fuel Handling – the transportation, sale, delivery, dispensing, storage or draining of fuel or fuel waste products to or from aircraft, vehicles or equipment.

Fuel Storage Area – any portion of the Airport designated temporarily or permanently by the Executive Director as an area in which aviation or motor vehicle gasoline or any other type of fuel or fuel additive may be stored or loaded.

General Aviation – all phases of aviation other than aircraft manufacturing, military aviation, and scheduled or non-scheduled commercial air carrier operations.

Hazardous Material – any substance, waste or material which is toxic, explosive, corrosive, flammable, infectious, radioactive, carcinogenic, mutagenic or otherwise hazardous, and is or becomes regulated as a hazardous material by any governmental authority, agency, department, commission, board or agency.

Minimum Standards – the qualifications which are established as the minimum requirements to be met as a condition for the privilege to conduct an Aeronautical Service on the Airport. All

operators will be encouraged to exceed the minimums; none will be allowed to operate under conditions below the minimum. These minimum standards are not intended to be all-inclusive, as the operator of a commercial venture which is based on the Airport will be subject additionally to all applicable Federal, State and Local laws, orders, codes, ordinances and other similar regulatory measures, including any Airport Rules and Regulations promulgated by the Authority.

Non-Movement Area – specifically designated portions of the AOA that may include aircraft loading ramps and aircraft parking areas.

Operational Areas:

1. **Airside** – those areas involved in any aircraft movement or operation, i.e., runways, taxiways, ramps, tie-down areas, hangar areas, etc.
2. **Landside** – those areas not involved in aircraft movement or operation.

Operator – a person or persons, firm, company, joint venture, partnership or corporation engaging in any Aeronautical Service on the Airport. An Operator may be classified as either a Fixed Base Operator (FBO) or a Specialized Fixed Base Operator (SFBO).

Permit – administrative approval issued by the Authority to a person or company to conduct a commercial aeronautical activity, and provide such services, to based and transient aircraft, only from facilities and locations where such services are authorized.

Person – an individual, corporation, firm, partnership, association, organization and any other group acting as an entity, to conduct business on the Airport. Person includes a trustee, receiver, assignee or similar representative.

Repair Station – a Federal Aviation Administration approved facility utilized for the repair of aircraft. Activities may include repair and maintenance of airframes, power plants, propellers, radios, instruments and accessories.

Restricted Area – any area of the Airport posted to prohibit entry or to limit entry or access to specific authorized persons.

Roadway – any street or road whether improved or unimproved, within the boundaries of the Airport and designated for use by ground vehicles.

Self-Service – aircraft refueling, repair, preventive maintenance, towing, adjustment, cleaning and general services performed by an aircraft owner or his/her employees on his/her aircraft with resources supplied by the aircraft owner.

Special Event – shall mean any activity to take place on an Airport that has not been approved under written agreement, lease, sublease, license, contract and/or permit executed with or from the Authority. This includes but is not limited to aircraft displays, air shows, community events or gatherings, and fly-ins.

Specialized Fixed Base Operator (SFBO) – a commercial aeronautical business that is authorized to offer a single or limited service according to established Minimum Standards. Examples of a SFBO include, but are not limited to the following commercial aeronautical activities: flight training, aircraft maintenance, air charter or taxi, aircraft sales, avionics maintenance, aircraft rental and sales, and aircraft storage.

Self-Fueling – the commercial operation of an unmanned stationary fuel tank and dispensing equipment for general use via a card reader. This includes the operations of anyone utilizing this type of equipment to provide fuel for sale or reuse.

Sublease – a written Agreement, approved by the Authority, stating the terms and conditions under which a third party Operator leases space from a Lessee for the purpose of providing aeronautical services at the Airport.

Titusville-Cocoa Airport Authority (Authority) – a public body existing under the laws of the State of Florida, or its successor in interest.

Taxilane – the portion of the Airport apron area, or any other area, used for access between taxiways and aircraft parking or storage areas.

Taxiway – a defined path established for the taxiing of aircraft from one part of the Airport to another.

UNICOM – a two-way communication system operated by a non-governmental entity that provides airport advisory information.

Vehicle Parking Area – any portion of the Airport designated and made available temporarily or permanently by the Authority for the parking of vehicles.

[This Area Intentionally Left Blank]

SECTION 2 - GENERAL INFORMATION

PURPOSE

These regulations prescribe Minimum Standards for Aeronautical Services at Space Coast Regional Airport. The purpose of the Minimum Standards is to establish a minimum acceptable level of service and by no means implies a right to provide services.

INTRODUCTION

Prudent and proper administration requires that standards establishing the minimum acceptable qualifications of participants, level and quality of service, and other conditions that will be required of those proposing to provide Aeronautical Services at the Airport be adopted. The requirement to impose standards on those proposing to provide Aeronautical Services at Space Coast Regional Airport is in the public interest. This requirement provides protection from irresponsible, unsafe or inadequate service.

The adoption and enforcement of such standards insures that the Operator is reasonably fit, willing and able to discharge both its service obligations to its customers and its economic obligations to the airport community, and thereby protects the aviation user, the public and the airport community. Therefore, standards established and applied promote economic stability by discouraging unqualified applicants and fostering the level of services desired by the public and the Titusville-Cocoa Airport Authority.

CONDUCT OF AN AERONAUTICAL SERVICE OPERATOR

It is the policy of the Titusville-Cocoa Airport Authority to extend the opportunity for providing an Aeronautical Service to any entity meeting the Authority's published standards for that service, subject to availability of suitable space at the Airport to conduct such activities. The Space Coast Regional Airport Master Plan provides the basis for determining whether suitable space is available.

APPLICABILITY

These Standards apply to any person or entity that provides one or more Aeronautical Services at Space Coast Regional Airport except that no provision of these Standards shall be deemed to prohibit any person from performing maintenance and fueling with respect to its own aircraft.

WAIVERS

The Authority may, in its sole discretion, waive all or any portion of the Minimum Standards set forth herein for the benefit of any government or governmental agency performing non-profit public services to the aircraft industry, or performing public services to the aircraft industry, or performing emergency medical or rescue services to the public by means of aircraft, or performing fire prevention or firefighting operations and law enforcement operations. The Authority may further temporarily waive any of the Minimum Standards for non-governmental Operators where the Authority, in its sole discretion, deems such waiver to be in the best interest or welfare of the Airport's operation.

VIOLATIONS, PENALTIES AND PROCEDURES

If the Executive Director determines that any of these Minimum Standards have been violated by an entity operating on the Airport, and that he or she cannot resolve the matter satisfactorily by notice to, and discussion with, the offending Operator, then the Executive Director may take formal action against the offending Operator. Such action may include, but not limited to, reprimand, fines, suspension of airport operations by the Operator, or revocation of the Operator's right to conduct business at the Airport.

CATEGORIES OF AERONAUTICAL SERVICE OPERATORS

The following sets forth the categories of Aeronautical Service Operators at Space Coast Regional Airport:

1. Full Service Fixed Base Operators (FBO)
2. Specialized Fixed Base Operators (SFBO):
 - a. Aircraft Sales
 - b. Aircraft Airframe, Engine, and Accessory Maintenance and Repair
 - c. Aircraft Rental
 - d. Flight Training
 - e. Avionics, Instrument, Propeller Repair
 - f. Aircraft Charter and Air Taxi
 - g. Aircraft Storage
 - h. Specialized Commercial Flying Services
 - i. Multiple Services
3. Flying Clubs

AMENDMENT TO EXISTING STANDARDS

These Standards shall for all purposes be deemed to be an amendment and restatement of the **Minimum Standards of the Titusville-Cocoa Airport Authority dated February 13, 1986**, which were in effect immediately prior to the adoption of these Standards. On or after the Effective Date of these Standards, any reference in any Authority Agreement to such prior Standards shall be deemed to be a reference to these Minimum Standards.

RIGHT TO AMEND STANDARDS

The Titusville-Cocoa Airport Authority reserves the right to adopt such amendments to these Minimum Standards from time to time as it determines are necessary or desirable to reflect current trends of commercial airport activity and availability of property for lease, for the benefit of the general public or the operation of the Airport.

EFFECTIVE DATE

These Standards shall become effective on November 19, 2002.

APPROVED

David N. Edwards, Jr.

David N. Edwards, Jr., A.A.E., Executive Director

SECTION 3 - APPLICATION PROCEDURES

1. Application to perform Aeronautical Services must be made in accordance with these Minimum Standards and signed by all parties owning an interest in the business including each partner, director, or corporate officer. The Application is attached to this document as Appendix "A".
2. The original application, together with all required documentation, shall be submitted to:

**Executive Director
Titusville-Cocoa Airport Authority
355 Golden Knights Blvd.
Titusville, Florida 32780**

3. Applicants shall furnish the following supporting documents as evidence of organizational and financial capability to provide the proposed activities:
 - a. Business Plan - a written proposal detailing the nature of the proposed Aeronautical Service to be provided, space and facility requirements and the proposed location on the Airport (see Appendix B).
 - b. Financial Statement - a current financial statement prepared in accordance with standard accounting principles by a certified public accountant (CPA). Applicant must submit a report from all principals for a corporation or partnership. The Airport shall be entitled to consider the financial statement in evaluating the applicant's financial ability to provide reasonable, safe and adequate Aeronautical Services to the public. The Executive Director in his sole discretion with respect to a Specialized Fixed Base Operator may waive this requirement.
 - c. Credit Report - a current credit report covering all business activities in which the applicant has participated within the past ten years. Applicant must submit a report for all principals for a corporation or partnership.
 - d. Personnel - a listing, with resumes, of key personnel to be assigned to the Space Coast Regional Airport along with a description of their duties and responsibilities.

- e. Evidence of Insurance with policy coverage; conditioned on the faithful performance of an agreement that conforms to the requirements of the Airport Authority's Insurance Requirements as outlined in these Minimum Standards (see Appendix C).
- f. Such other information as the Authority may require.

ACTION ON APPLICATION

1. **The Authority may deny any application, or reject proposal to operate any Aeronautical Service on the Airport, if, in its opinion, it finds any one or more of the following:**

The applicant does not meet published qualifications, standards and requirements established by these Minimum Standards.

- a. The applicant has supplied the Authority, or any other person, with false or misleading information or has failed to make full disclosure in their application or in the supporting documents.
- b. There is no appropriate, adequate or available space on the Airport to accommodate the applicant at the time of application.
- c. The proposed activity construction/development plans conflict with the Airport's approved Airport Layout Plan, or which will create a safety hazard as determined by the Authority or by the FAA through the review Form 7460-1.
- d. The proposed activity construction/development requires the Authority to spend funds or to supply materials/manpower that the Authority is unwilling to spend or supply.
- e. The proposed activity construction/development will result in depriving existing Operators of portions of the area in which they are operating; will result in congestion of aircraft or buildings; or will unduly interfere with the operations of any present Operators, or prevent free access to such operations.
- f. The proposed activity or operations have been or could be detrimental to the Airport.
- g. The applicant has violated any of the Space Coast Regional Airport Minimum Standards and/or Rules and Regulations, or the standards and regulations of any other airport, the Civil Air Regulations, the Federal Aviation Regulations, any other statutes, ordinances, laws or orders applicable to the Airport or any other airport.
- h. The applicant has defaulted in the performance of any lease or other agreement with the Authority.
- i. The applicant's credit report contains information that would create questions regarding the applicant's abilities to conduct the proposed operation.

- j. The applicant does not have, or appear to have, access to the operating capital necessary to conduct the proposed operation.
- k. The applicant is unable to obtain sufficient insurance, financial sureties or guarantors to protect the interest of the Authority, the FAA or other appropriate governmental entities.
- l. The applicant has been convicted of any crime, or has violated any Local, State or Federal laws.
- m. The Authority determines that the proposal is not in the best interest of the health, safety, welfare, necessity or convenience of the traveling public or Airport.

SECTION 4 - GENERAL REQUIREMENTS

1. Land

- a. A Fixed Base Operator must lease property at the Airport sufficient to comply with the provisions of these Standards directly from the Authority. Each Fixed Base Operator shall lease from the Authority sufficient land to conduct its Aeronautical Services at the Airport, including, without limitation, sufficient land for hangars, buildings, aircraft and equipment parking and storage, automobile parking for both employees and customers, and pedestrian access to offices and lounges.
- b. A Specialized Fixed Base Operator may either lease such property directly from the Authority, or sub-lease from another Airport Tenant, subject to approval by the Authority in accordance with the provisions of the applicable lease documents.

2. Hangars and Other Buildings

The Operator shall lease or construct hangar facilities for aircraft storage and lease or construct sufficient buildings to accommodate offices and shops to support their activities on the Airport.

3. Aircraft Parking Apron

The Operator shall lease or construct sufficient paved aircraft parking apron within its leasehold premises to meet the applicable standard for their aeronautical activity. The Operator shall provide any paved taxiways or taxilanes required for access to the Airport's taxiway system.

4. Equipment

- a. The specific equipment requirements specified in these Standards shall be deemed satisfied if the Operator owns, leases or otherwise has sufficient access to the equipment to provide the applicable Aeronautical Services promptly on demand without causing any flight delays or other operational impacts on aircraft at the Airport.
- b. If required by the Space Coast Regional Airport Rules and Regulations all vehicles operating at the Airport shall have required permits and registrations, including permits for operation on the Air Operations Area.
- c. All vehicles operating at the Airport shall be clearly designated with the name of the Operator on the vehicle.

5. Personnel and Training

- a. All non-management personnel in the Air Operations Area shall be suitably uniformed, and the uniform shall identify the name of the Operator providing the service.
 - 1. At all times an adequate number of qualified and, where applicable, licensed employees shall be on duty to provide a level of service consistent with these Standards.
 - 2. When any Aeronautical Services are being performed, at least one qualified supervisor shall be on duty.
- b. Each Operator shall establish a written training program to ensure that all employees are thoroughly trained and qualified to perform the tasks to which they are assigned. The training program shall contain detailed instruction in proper operating procedures for each job classification.

6. Contract Security

The Operator shall, prior to commencing operations at the Airport, provide Authority with a cash deposit, contract bond, irrevocable letter of credit or other security acceptable to the Authority ("Contract Security") to guarantee the faithful performance by the Operator of its obligations under the Standards and its Operating Agreement with the Authority.

7. Insurance Requirements

The Operator shall procure and maintain continuously in effect throughout the term of its activities upon the Airport at Operator's sole expense, insurance of the types and in at least such minimum amounts as set forth in this document (see Appendix C).

a. Policy Change

All Agreements shall require a minimum of thirty (30) days prior written notice of any adverse material change in Contractor's required insurance coverage.

b. Insurer Ratings

All Operating Agreements shall require Operators to obtain all required insurance coverages from insurance companies that are approved to issue insurance policies in the State of Florida.

c. Indemnity

All Agreements shall contain a hold harmless and indemnity agreement in favor of the Authority.

d. Additional Insured

All insurance that the Operator is required by the Authority to carry and keep in force shall include an additional insured endorsement, except Professional Liability and Workers' Compensation Insurance. Any such endorsement shall include as additional insureds, the Titusville-Cocoa Airport Authority (including, without limitation, members of the Authority's Board, officers, agents, and employees).

e. Evidence of Insurance

All Agreements that specify a minimum insurance requirement shall require the Operator to provide Evidence of Insurance in the form of a current ACORD Certificate of Insurance or its equivalent executed by the insurer, or its agent or broker, evidencing that a policy of insurance and any endorsements required have been issued, together with a Statement of Agent/Broker form executed by the Agent/Broker.

f. Automobile Liability Insurance

- i. Each Operator operating one or more motor vehicles on the Authority's premises in the performance of their work shall purchase and maintain Automobile Liability Insurance in the amounts set forth in these Minimum Standards.
- ii. Operators having unescorted access to the AOA at Space Coast Regional Airport shall purchase and maintain Automobile Liability Insurance with policy limits of not less than \$3 million Combined Single Limit.

g. General Liability Insurance

Each Operator at Space Coast Regional Airport shall maintain Commercial General Liability Insurance with policy limits not less than \$1 million Combined Single Limit per occurrence. The Commercial General Liability Insurance policy for an Operator that operates a hangar facility shall include Hangar Keeper's Legal Liability Insurance.

h. Umbrella Liability Insurance

The minimum policy limit requirements under the Authority's policy may be met by a primary Liability Insurance Policy and an Umbrella or Excess Liability Policy.

i. Waiver of Subrogation

All contracts requiring Property Insurance shall contain a waiver of subrogation clause in favor of the Authority.

j. Workers' Compensation and Employers Liability Insurance

All Operators that have employees working on Authority property shall purchase and maintain Workers' Compensation and Employer's Liability Insurance. Policy limits of Employer's Liability Insurance shall not be less than \$100,000 "each accident," \$500,000 "disease policy limit," and \$100,000 "disease each employee." If the Operator is self-insured, the Operator shall provide proof of self-insurance and authorization to self-insure as required by applicable state laws and regulations. In lieu of Workers' Compensation and Employer's Liability coverage, an Operator may present a valid Certificate of Exemption to the Authority for all employees working on Authority property unless an employee is a member of an excluded class under the Florida Workers Compensation law.

k. Special Events

All Special Events to be held on an Airport are required to submit a valid Certificate of Insurance 14 calendar days prior to the event.

l. Exceptions/Waivers

As may be necessary or in the best interests of the Authority to increase competition, reduce the Authority's expenses, or as otherwise may be deemed appropriate under the circumstances, the Executive Director or his Designee may waive, reduce, or otherwise modify any of the requirements of the Authority's Insurance Requirements, including, without limitation, reducing policy limit requirements, waiving certain coverage, or authorizing larger self-insured retentions.

8. Airport Security

All Operators shall be required to conform to the applicable requirements and procedures of any adopted Security Plans for Space Coast Regional Airport. The Authority reserves the right to impose additional security measures based on threat vulnerability estimates at any time.

9. Operating Agreement

No applicant may provide an Aeronautical Service at the Airport until entering into a written Agreement with the Authority. The Agreement shall be in a form acceptable to the Authority, shall specify which types of Aeronautical Services the Operator is authorized to provide, and shall contain, without limitation, provisions for fees payable to the Authority, insurance, indemnification, and a security deposit or other form of contract security as required in these Standards.

10. Subcontracting

- a. A Fixed Base Operator shall not subcontract any fueling services. Subject to the prior written approval of the Authority, which may be withheld in the Authority's and unfettered discretion, an FBO may subcontract any other Specialized Fixed Base Operator Services. In determining whether to grant or deny such approval, the Executive Director may consider such factors as it deems to be pertinent and may impose such conditions, as it shall deem to be pertinent.
- b. Notwithstanding the approval by the Authority, all subcontractors to a Fixed Base Operator must comply with all provisions of these Standards and the FBO shall remain fully responsible to the Authority for ensuring that any subcontracted Aeronautical Services are performed in accordance with all of the provisions of these Standards.
- c. Specialized Fixed Base Operators may not subcontract any of the services they are authorized to provide.

11. Required Fees and Payments

The exact fees and payments due to the Authority will be determined on an individual basis and incorporated into a Lease Agreement.

SECTION 5 - MINIMUM STANDARDS

The following Standards have been developed after consideration of the above elements with attention to their applicability at the Space Coast Regional Airport. The Standards are grouped according to the specific type of activities to which they pertain and any applicant desiring to provide these services at the Airport must meet the standards pertaining to that type of Aeronautical Service.

The Standards set forth herein are the minimum which the Authority will require in Agreements authorizing an entity to provide an Aeronautical Service at the Airport, and, unless specifically limited herein, do not preclude the applicant from seeking greater operating authority than the minimum required.

The Authority reserves the right to adjust and/or combine the square footage of building space or area required herein for each Aeronautical Service if more than one (1) Aeronautical Service is to be provided by one (1) entity.

The Authority reserves the right to review and amend these Minimum Standards as necessary.

SECTION 6 - FIXED BASE OPERATOR

This section sets forth the Minimum Standards for a "Full Service" Fixed Base Operator (FBO) at Space Coast Regional Airport.

STATEMENT OF CONCEPT

A Fixed Base Operator engages in and furnishes a full range of Aeronautical Activities and Services to the public, which shall include, as a minimum, the following:

1. General Aviation Fueling and Line Services

Only Fixed Base Operators (Full Service) shall be permitted to engage in the public business of sales and dispensing of aviation fuels. No other Operator shall be permitted to engage in these specific aeronautical business activities.

2. Passenger Transportation

Gratuitous passenger transportation services between the Leased Premises and other places of origin and destination on the Airport for the FBOs patrons arriving on non-commercial aircraft.

3. Emergency Assistance

Emergency service to disabled aircraft on the Airport, including towing or transporting of disabled aircraft having a gross landing weight not in excess of 70,000 pounds to the Leased Premises, at the request of the owner or operator of the disabled aircraft or the Authority.

4. Collection Agent

Collection agent when requested by the Authority, with respect to landing fees applicable to any aircraft arriving at the Airport, excluding aircraft owned by or leased to a certificated air carrier holding an Agreement with the Authority for use of the Airport.

5. Other Services

The FBO must provide at least three (3) of the following specialized services either directly or through an approved sub-lessee:

- a. Aircraft Sales
- b. Aircraft Airframe, Engine, and Accessory Maintenance and Repair
- c. Aircraft Rental
- d. Flight Training
- e. Avionics, Instrument, Propeller Repair
- f. Aircraft Charter and Air Taxi
- g. Aircraft Storage
- h. Specialized Commercial Flying Services

MINIMUM STANDARDS

1. Land

Must lease enough land to provide adequate space for: hangars and other buildings; paved private auto parking; paved aircraft apron; paved pedestrian walkways; fuel storage facilities; and all storage, servicing utilities and support facilities.

2. Hangars and Other Buildings

- a. Must lease or construct building to provide a minimum of 10,000 square feet for aircraft storage and maintenance.
- b. Must lease or construct 1,500 additional square feet of lounge, offices, flight planning facilities, pilot waiting areas, public restrooms and telephone facilities.

3. Aircraft Parking Apron

The aircraft parking apron must be a minimum of 50,000 square feet.

4. Fuel Storage Facilities

- a. Land for underground or above-ground fuel storage tanks to be constructed and operated in accordance with all applicable environmental requirements and FAR Part 139.321 requirements on the FBO's leased premises.
- b. The tank capacities shall be at least 10,000 gallons for each type of fuel being sold to assure an adequate supply at all times. The FBO shall be required to provide both Jet A and 100LL fuels.
- c. The storage system must include adequate fuel spill prevention features and containment capabilities, together with an approved fuel spill containment and countermeasures control plan.
- d. The FBO shall be required to undertake, at its expense, any environmental testing which the Authority may request from time to time, and any remedial actions which the Authority may determine to be necessary or appropriate as a result of such testing.

5. Mobile Dispensing Equipment

- a. The FBO shall provide at least two (2) metered filter-equipped mobile dispensing trucks for dispensing the two (2) types of fuel, with separate dispensing pumps and meters required for each type of fuel.
- b. At least one (1) of the mobile dispensing trucks contain Jet A fuel with a capacity of at least 750 gallons.
- c. The remaining mobile dispensing truck shall be for aviation gasoline with a capacity of at least 750 gallons to assure adequate service.

- d. All dispensers must have bottom-refilling capabilities and jet fuel dispensers must have single point refueling capabilities.
- e. All equipment shall be maintained and operated in accordance with OSHA, Local, State, and Federal regulations, and FAA regulations, including but not limited to FAR Part 139.321 with metering devices subject to independent inspection.

6. Aircraft Service Equipment

The FBO shall procure and maintain tools, jacks, tugs, towing equipment, tire repairing equipment, ground power units, emergency starting equipment, portable compressed air tanks, oxygen cart and supplies on request, fire extinguishers, mobile passenger stairs on request, chocks, ropes, tie-down supplies, crew and passenger courtesy transportation vehicles and a "Follow-Me" vehicle, as appropriate and necessary for the servicing of aircraft types normally expected to use the airport.

7. Hours of Operation

All FBOs shall provide aircraft fueling and line services from 7:00 a.m. to 7:00 p.m., seven (7) days per week, and twenty-four (24) hours a day on call service, including holidays or such other hours as may be mutually agreed upon in writing by the Authority and FBO.

8. Personnel and Training

- a. Line Service: At least one (1) fully trained and qualified fuel service person and one (1) person to act as a qualified supervisor, customer service representative, ramp attendant, landing/parking fee collector and dispatcher shall be on duty during normal business operating hours.
- b. Maintenance: At least one (1) FAA-licensed aircraft mechanic shall be made available promptly upon request. This requirement can be met by contract with a Specialized Fixed Base Operator authorized to conduct Aircraft Maintenance at the Airport.
- c. All fuel service personnel shall be suitably uniformed with the name of the FBO thereon.
- d. All fuel service personnel shall have successfully completed a National Aviation Transportation Association (NATA) approved line technician safety course or similar fuel safety course provided by a major fuel company supplier approved by the Federal Aviation Administration for compliance with FAR Part 139 and be recertified every three (3) years.

SECTION 7 - SPECIALIZED FIXED BASE OPERATOR - AIRCRAFT MAINTENANCE AND REPAIR

STATEMENT OF CONCEPT

An Aircraft Maintenance Operator is a person, firm, corporation or other entity providing maintenance, repair, rebuilding, alteration and/or inspection of an aircraft or any of its component parts. An Aircraft Maintenance Operator must be certified by the Federal Aviation Administration under FAR 145 to perform aircraft maintenance and shall provide only those maintenance and inspection services permitted by its FAA certification. This category shall also include the sale of aircraft parts and accessories, but such is not an exclusive right.

MINIMUM STANDARDS

1. Land

The Operator shall lease enough land to provide space for hangars and other buildings; paved private auto parking; paved aircraft apron; a paved pedestrian walkway; all storage, utilities and support facilities.

2. Hangars and Other Buildings

The Operator shall lease or construct hangar facilities providing at least 3,500 square feet for maintenance and storage of aircraft. In addition to the hangar, the Operator must provide adequate and properly illuminated and conditioned space for offices and shops.

3. Aircraft Apron

The Operator shall lease paved aircraft parking and storage area to support its activities.

4. Aircraft Service Equipment

- a. The Aircraft Maintenance Operator shall at all times maintain an adequate supply of all necessary parts, equipment and accessories.
- b. One aircraft tug of sufficient power or braking weight to handle any aircraft that the Operator is permitted to service under the Operator's FAA certificate.
- c. All of the tools and equipment required under the Operator's FAA certificate.

5. Hours of Operation

- a. Shall have the Lease Premises open and services available at least eight (8) hours a day, five (5) days a week with a twenty-four (24) hour contact telephone number.
- b. The Operator shall provide services during off-hours through an "on-call" system.

6. Personnel and Training

- a. The Operator shall have in its employ, and on duty during the appropriate business hours, trained personnel in such numbers as are required to meet the Minimum Standards set forth in a safe and efficient manner, but never less than one (1) person currently certified by the FAA with ratings appropriate to the work being performed, and who holds an airframe, power plant or an aircraft inspector rating, plus one (1) additional person not necessarily rated.
- b. The Operator shall maintain during business hours, a qualified person in charge to supervise its operations on the Airport and with the authorization to represent and act for and on behalf of the Operator.

**SECTION 8 - SPECIALIZED FIXED BASE OPERATOR -
AIRCRAFT SALES**

STATEMENT OF CONCEPT

- A. New Aircraft Sales: An Aircraft Sales Operator engages in the sale of new aircraft through franchises or licensed dealerships (if required by local, county or state authority) or distributorship (either on a retail or wholesale basis) of an aircraft manufacturer or used aircraft; and provides such repair, services and parts as necessary to meet any guarantee or warranty on aircraft sold.
- B. Used Aircraft Sales: Many companies engage in the purchasing and selling of used aircraft. This is accomplished through various methods including matching potential purchasers with an aircraft (brokering), assisting a customer in the purchase or sale of an aircraft, or purchasing used aircraft and marketing them to potential purchasers. Sometimes these companies' also provide such repair, services and parts as necessary to support the operation of aircraft sold. Some of the requirements may not be appropriate to the sale of used aircraft because of each aircraft's unique operational history.

MINIMUM STANDARDS

1. Land

The Operator shall lease enough land to provide space for buildings; paved private auto parking; paved aircraft apron; a paved pedestrian walkway; all storage, utilities and support facilities.

2. Buildings

The Operator must provide a minimum of 200 square feet of illuminated and conditioned space for offices and public areas.

3. Aircraft Apron

The Operator shall lease paved aircraft parking and storage area to support its activities.

4. Aircraft Service Equipment

The sales entity shall provide necessary and satisfactory arrangements for repair and servicing of aircraft, but only for the duration of any sales guarantee or warranty period and shall provide an adequate inventory of spare parts for the type of new aircraft for which sales privileges are granted. The Operator engaged in the business of selling new aircraft shall have available a representative example of the product.

5. Hours of Operation

Shall have the Leased Premises open and services available at least eight (8) hours a day, five (5) days a week.

6. Personnel and Training

The company shall have in his employ, and on duty during the appropriate business hours, trained personnel in such numbers as are required to meet the Minimum Standards set forth in an efficient manner. They shall also maintain, during all business hours, a responsible person in charge to supervise the operations in the leased area with the authorization to represent and act for and on behalf of the firm, and provide the pilot with the proper check ride certification and qualifications for each aircraft sold.

SECTION 9 - SPECIALIZED FIXED BASE OPERATOR - AIRCRAFT RENTAL

STATEMENT OF CONCEPT

An Aircraft and/or Ultralight Vehicle Lease or Rental Operator engages in the rental or lease of aircraft and/or ultralight vehicle to the public.

MINIMUM STANDARDS

1. Land

The Operator shall lease enough land to provide space for buildings; paved private auto parking; paved aircraft apron; a paved pedestrian walkway; all storage, utilities and support facilities.

2. Buildings

The Operator must provide a minimum of 200 square feet of illuminated and conditioned space for offices and public areas, and access to public restrooms.

3. Aircraft Apron

The Operator shall lease paved aircraft parking and storage area to support its activities.

4. Aircraft Equipment

Aircraft:

The Operator shall have available for rental, either owned or under written lease to the Operator, two (2) certified and currently airworthy aircraft, one of which must be a four-place aircraft, and of which one must be equipped for and capable of flight under instrument weather conditions.

5. Hours of Operation

Shall have the Leased Premises open and services available at least eight (8) hours a day, five (5) days a week with a twenty-four (24) hour contact telephone number.

6. Personnel and Training

The Operator shall have in his employ and on duty during the appropriate business hours, a minimum of one (1) person have a current FAA commercial pilot certificate with appropriate ratings, including instructor rating.

SECTION 10 - SPECIALIZED FIXED BASE OPERATOR - FLIGHT TRAINING

STATEMENT OF CONCEPT

A Flight Training Operator engages in instructing pilots in dual and solo flight training, in fixed wing, rotary wing or ultralight aircraft, and provides such related ground school instruction as is necessary preparatory to taking a written examination and flight check ride for the category or categories of pilots' licenses and ratings involved.

MINIMUM STANDARDS

1. Land

The Operator shall lease enough land to provide space for buildings; paved private auto parking; paved aircraft apron; a paved pedestrian walkway; all storage, utilities and support facilities.

2. Buildings

The Operator must provide a minimum of 400 square feet of illuminated and conditioned space for offices, classrooms and pilot briefings, and public areas, and access to public restrooms.

3. Aircraft Apron

The Operator shall lease paved aircraft parking and storage area to support its activities.

4. Aircraft Equipment

Aircraft:

The Operator shall have available for flight training, either owned or under written lease to the Operator, two (2) certified and currently airworthy aircraft, one of which must be a four-place aircraft, and of which one must be equipped for and capable of flight under instrument weather conditions.

5. Hours of Operation

Shall have the Leased Premises open and services available at least eight (8) hours a day, five (5) days a week with a twenty-four (24) hour contact telephone number.

6. Personnel and Training

The Operator shall have in his employ and on duty during the appropriate business hours, a minimum of one (1) person have a current FAA commercial pilot certificate with appropriate ratings, including instructor rating.

**SECTION 11 - SPECIALIZED FIXED BASE OPERATOR -
AVIONICS, INSTRUMENTS, PROPELLER REPAIR STATION**

STATEMENT OF CONCEPT

An Avionics, Instrument or Propeller Repair Station Operator engages in the business of and provides a shop for the repair of aircraft avionics, propellers, instruments, and accessories for aircraft. This category may include the sale of new or used aircraft avionics, propellers, instruments and accessories. The Operator shall hold the appropriate repair station certificates issued by FAA for the types of equipment being serviced and/or installed.

MINIMUM STANDARDS

1. Land

The Operator shall lease enough land to provide space for buildings; paved private auto parking; paved aircraft apron; a paved pedestrian walkway; all storage, utilities and support facilities.

2. Buildings

Must lease or construct 3,500 square feet of combined offices, support maintenance and storage areas, public restrooms and telephone facilities.

3. Aircraft Apron

The Operator shall lease paved aircraft parking and storage area to support its activities.

4. Aircraft Service Equipment

- a. The Operator shall at all times maintain an adequate supply of all necessary parts, equipment and accessories.
- b. All of the tools and equipment required under the operator's FAA certificate.

5. Hours of Operation

Shall have the Leased Premises open and services available at least eight (8) hours a day, five (5) days a week.

6. Personnel and Training

The Operator shall have in his employ and on duty during the appropriate business hours trained personnel in such numbers as are required to meet the Minimum Standards set forth in this category but never less than one (1) person who is an FAA rated radio, instrument or propeller repairman.

**SECTION 12 - SPECIALIZED FIXED BASE OPERATOR -
AIRCRAFT CHARTER AND AIR TAXI**

STATEMENT OF CONCEPT

An On Demand, or Scheduled Air Charter or Air Taxi Operator engages in the business of providing air transportation (persons or property) to the general public for hire, on an unscheduled or scheduled basis under CFR 14 Part 135 of the Federal Aviation Regulations.

MINIMUM STANDARDS

1. Land

The Operator shall lease enough land to provide space for buildings; paved private auto parking; paved aircraft apron; a paved pedestrian walkway; all storage, utilities and support facilities.

3. Buildings

Must lease or construct 500 square feet of combined offices, and support space, and provide access to public restrooms and telephone facilities.

4. Aircraft Apron

The Operator shall lease paved aircraft parking and storage area to support its activities.

5. Aircraft Equipment

The Operator shall provide, either owned or under written lease, intended to be used by the Operator, not less than one (1) single-engine four-place aircraft and one (1) multi-engine aircraft, both of which must meet the requirements of the air taxi commercial certificate held by the Operator. The multi-engine aircraft shall be certified for instrument operations.

6. Hours of Operation

Shall have the Leased Premises open and services available at least eight (8) hours a day, five (5) days a week with a twenty-four (24) hour contact telephone number.

7. Personnel and Training

The Operator shall have in his employ and on duty during the appropriate business hours trained personnel in such numbers as are required to meet the Minimum Standards set forth in this category in an efficient manner but never less than one (1) person who is an FAA certified commercial pilot and otherwise appropriately rated to permit the flight activity offered by the company.

**SECTION 13 - SPECIALIZED FIXED BASE OPERATOR -
AIRCRAFT STORAGE**

STATEMENT OF CONCEPT

An Aircraft Storage Operator engages in the rental of conventional multi-aircraft hangars or multiple individual t-hangars.

MINIMUM STANDARDS

1. Land

The Operator shall lease enough land to provide space for buildings; paved private auto parking; paved aircraft apron; a paved pedestrian walkway; all storage, utilities and support facilities.

2. Hangars

- a. Must lease or construct 3,500 square feet for a conventional multi-aircraft storage hangar, or
- b. Must lease or construct a minimum of eight (8) t-hangar storage units, and
- c. Must construct or provide access to public restrooms.

3. Aircraft Apron/Taxilanes

The Operator shall lease or construct paved aircraft parking and access to such facilities to support its activities.

4. Aircraft Services/Equipment

- a. The Operator shall have his facilities available for the tenant's aircraft removal and storage on a continuous basis.
- b. The Operator shall provide sufficient personnel and equipment to meet all requirements for the storage of aircraft.

5. Hours of Operation

Shall have the Leased Premises open and services available at least eight (8) hours a day, five (5) days a week or through an “on call” system.

6. Personnel and Training

The Operator shall have in his employ and on duty during the appropriate business hours trained personnel in such numbers as are required to meet the Minimum Standards set forth in this category in an efficient manner.

**SECTION 14 - SPECIALIZED FIXED BASE OPERATOR -
SPECIALIZED COMMERCIAL FLYING SERVICES**

STATEMENT OF CONCEPT

A Specialized Commercial Flying Services Operator engages in air transportation for hire for the purpose of providing the use of aircraft for the following activities:

- a. Non-stop sightseeing flights that begin and end at the same airport.
- b. Crop dusting, seeding, spraying and bird chasing.
- c. Banner towing and aerial advertising.
- d. Aerial photography or survey.
- e. Power line or pipe line patrol.
- f. Fire fighting.

MINIMUM STANDARDS

1. Land

The Operator shall lease enough land to provide space for buildings; paved private auto parking; paved aircraft apron; a paved pedestrian walkway; all storage, utilities and support facilities.

2. Buildings

Must lease or construct 200 square feet of combined offices, and support space, and provide access to public restrooms and telephone facilities.

3. Aircraft Apron

The Operator shall lease paved aircraft parking and storage area to support its activities.

4. Other Requirements

In the case of crop dusting or aerial application, the Operator shall make suitable arrangements and have such space available in his leased area for safe loading and unloading and storage and containment of chemical materials. A written emergency plan for the handling of hazardous materials will be required. All spills should immediately be reported to the Authority. All companies' shall demonstrate that they have the availability of aircraft suitably equipped and certified for the particular type of operation they intend to perform.

5. Hours of Operation

Shall have the Leased Premises open and services available at least eight (8) hours a day, five (5) days a week.

6. Personnel and Training

The Operator shall have in his employ, and on duty during appropriate business hours, trained personnel in such numbers as may be required to meet the Minimum Standards herein set forth in an efficient manner.

**SECTION 15 - SPECIALIZED FIXED BASE OPERATOR -
MULTIPLE SPECIALIZED AERONAUTICAL SERVICES**

STATEMENT OF CONCEPT

This section would apply to any Specialized Fixed Base Operator that engages in any two (2) or more of the Specialized Aeronautical Services for which Minimum Standards have been developed. The sale of aviation fuels and lubricants are not included in this category. These functions are reserved solely to Fixed Base Operators as set forth in Section 6 of this document.

MINIMUM STANDARDS

1. Land

The Operator shall lease from the Authority, or sublease from an FBO, an area that is equal to the total area required by the sum of the minimum land area required under the individual specialized services the Operator is providing.

2. Hangars and Other Buildings

The Operator shall lease or construct hangar facilities providing a total square footage that is equal to the total area required by the sum of the minimum hangar size required under the individual specialized services the Operator is providing.

3. Aircraft Apron

The Operator shall lease or construct paved aircraft parking apron that provides a total square footage that is equal to the total area required by the sum of the minimum apron area required under the individual specialized services the Operator is providing.

4. Hours of Operation

The Operator shall adhere to the hours of operation required elsewhere in these Minimum Standards for each Specialized Aeronautical Service being provided.

5. Equipment

The Operator shall provide the facilities, equipment and services required to meet the Minimum Standards as provided for each Specialized Aeronautical Service the Operator is performing.

6. Personnel

The Operator shall have in its employ and on duty during the appropriate business hours, trained personnel in such numbers as are required to meet the Minimum Standards for each Specialized Aeronautical Service the Operator is providing. Multiple responsibilities may be assigned to meet the personnel requirements for each Specialized Aeronautical Service being performed.

**SECTION 16 - SPECIALIZED FIXED BASE OPERATOR -
OTHER AERONAUTICAL SERVICES**

STATEMENT OF CONCEPT

Many types of Aeronautical Services may exist which are too varied to reasonably permit the establishment of specific Minimum Standards for each. When specific Aeronautical Services are proposed which do not fall within the categories in this document, Minimum Standards will be developed on a case-by-case basis, taking into consideration the desires of the proponent, the needs of the Authority, and the public demand for such service.

**SECTION 17 - MINIMUM STANDARDS FOR PRIVATE CORPORATION
OWNED NON-COMMERCIAL HANGAR AND AVIATION FUEL DISPENSING
FACILITIES**

STATEMENT OF CONCEPT

This section is provided to provide guidance for those Tenants that may desire to lease land directly from the Authority to construct a privately owned hangar and to dispense aviation fuels and oil and provide other related services for its own aircraft. The following minimum operating standards shall apply:

MINIMUM STANDARDS

1. Land

The leasehold shall contain not less than 43,560 square feet (one acre) of land to provide space for: all buildings; paved aircraft parking apron; paved private employee automobile parking, vehicular driveways and service accessways, minimum building setbacks from edges of the leasehold. If the Tenant desires to maintain its own aviation fuel farm facility, such facility shall be located within the above-described leasehold area, subject to applicable building and fire codes in effect at time of Tenant's intent to construct such fueling facility. In addition to the minimum leasehold requirement for hangar facilities, the Tenant shall provide at its own expense, paved taxiway access to the Airport's existing taxiway system. Such taxiways provided by Tenant shall be constructed in full conformance with applicable Airport and FAA standards for the largest type of aircraft expected to use the taxiway.

2. Buildings

A building shall be leased or constructed which will provide a minimum of 5,000 square feet of aircraft storage space, plus properly heated space for workshops, offices, storage, employee lounge area and restroom facilities. The paved aircraft parking apron shall be at least 24,000 square feet in area.

3. Personnel

Properly trained and certificated persons shall be on duty during hours of operation. The Tenant shall submit, to the Authority, certifications of the training in safety procedures received by each person who will conduct aviation fuel dispensing operations on its premises.

4. Services Permitted

Lessee shall not sell, barter, trade, share, sub-lease or in any other manner provide hangar space, fuel or fueling facilities to any other Airport Tenant or User, or to any other aircraft except those aircraft owned or leased for the exclusive use of the Tenant designated in the Airport Lease Agreement. Lessee shall use the Leased Premises solely for storage, maintenance and servicing of its own aircraft with its own personnel. No commercial activity of any kind shall be permitted on the premises. No Aeronautical

Services of any kind except operation and servicing of its own aircraft shall be permitted on the premises. Commercial activity is herein defined as the operation of any business for the exchange, trading, buying, hiring, selling or bartering of any commodities, goods, services or property of any kind or any other revenue-producing activity, whether or not a profit is produced. Hangar, office, shop or ramp space shall not be shared, sub-leased or used by anyone other than the Lessee of the Premises. Lessee shall not exercise any other rights or privileges reserved to Fixed Base Operators or Specialized Fixed Based Operators at the Airport under these Minimum Standards.

5. Fuel Facilities

- a. Lessee shall construct and maintain its facilities at its own expense, and shall conduct self-fueling operations in compliance with all applicable Federal, State, Local laws, ordinances, standards and regulations, whether currently in effect or enacted hereafter. Lessee shall enter into an airport fueling Agreement with the Authority which provides for, among other things, current safety, operational and maintenance requirements for fuel farms; payment of fuel flowage fees; inspection of fuel farms; training and testing of fueling personnel; and current FAA procedures for aircraft fueling operations.
- b. Fuel farm facilities shall contain a minimum of 10,000 gallons capacity each for FAA approved turbine aviation fuels and aviation gasoline fuels. Properly metered and filtered fixed dispensers for above or below-ground fuel storage tanks shall be provided on the premises. No mobile fuel dispensing equipment shall be permitted.

6. Specific Instructions of Use of Premises

- a. Only one (1) Tenant shall be permitted to lease, use and occupy a hangar and its related facilities.
- b. No sub-leasing of hangar, office, shop or ramp space shall be permitted.
- c. Aircraft based and serviced upon the premises shall be directly owned by, or exclusively leased in writing for a minimum period of six (6) months to the Tenant. No aircraft owned, leased, borrowed or otherwise used by employees of the Tenant shall be permitted on the premises.
- d. All maintenance and service work conducted on the premises and performed on the Tenant's aircraft shall be performed only by direct, full-time permanent employees of the Tenant, or by any FBO or SFBO based upon the Airport which have written Agreements with the Authority authorizing such Operators to conduct said activities.

SECTION 18 - FLYING CLUBS

STATEMENT OF CONCEPT

A Flying Club is a non-profit organization organized for the express purpose of providing its members with an aircraft(s) for their personal use and enjoyment only.

MINIMUM STANDARDS

- a. Each club must be registered as a non-profit corporation or partnership.
- b. Each member must be a bona fide co-owner of the aircraft or stockholder in the corporation.
- c. The club may not derive greater revenue from the use of its aircraft than the amount necessary for the actual operation, maintenance, and replacement of its aircraft.
- d. The club will file and keep current with the Authority, a complete list of the club's membership and investment share held by each member.
- e. The club's aircraft will not be used by other than bona fide members for rental and will not be used by anyone for commercial operations.
- f. Student instruction can be given in club aircraft to club members provided such instruction is given by a Lessee based at the Airport who provides flight instruction, or by an instructor who shall not receive remuneration in any manner for such service.
- g. Aircraft maintenance performed by the club shall be limited to only that maintenance that does not require a certificated mechanic. All other maintenance must be provided by a lessee based at the Airport who provides such service, or by a properly certificated mechanic who shall not receive remuneration in any manner for such service.

SECTION 19 – OTHER AVIATION ORGANIZATIONS

STATEMENT OF CONCEPT

An aviation organization is a registered non-profit corporation or organization organized for the express purpose of representing the aviation interests of its membership (i.e., aircraft building, aviation industry support, etc.)

MINIMUM STANDARDS

- a. Each organization must be registered as a non-profit corporation or organization.
- b. The organization may not derive greater revenue from its fund raising events or operations other than the amount necessary for the actual operation in maintaining the organization.

APPENDIX "A" - APPLICATION FOR COMMERCIAL BUSINESSES

FIXED BASE OPERATOR/ SPECIALIZED FIXED BASE OPERATOR

SECTION 1 – COMPANY INFORMATION

a.	Company Name (As it will appear on the permit. Please specify Corporation, Joint Venture, Sole Proprietorship)	
b.	Corporate Name if (a) is a d/b/a:	
c.	Type of Entity:	
d.	State of Incorporation:	
e.	Date of Incorporation:	
f.	List of corporate officers	

SECTION 2 – SERVICE PROPOSAL

Check below the services that the applicant is requesting to provide Airport Tenants/Users and include a business plan giving details of the proposed Aeronautical Service:

- ☐ Full Service Fixed Base Operator
- ☐ Specialized Fixed Base Operator:
- ☐ Aircraft, Airframe, Engine & Accessory Maintenance Repair
- ☐ Aircraft Sales
- ☐ Aircraft Rental
- ☐ Aircraft Flight Training
- ☐ Avionics, Instrument, Propeller Repair Station
- ☐ Aircraft Charter and Air Taxi
- ☐ Aircraft Storage
- ☐ Multiple Service, Other Specialized Aeronautical Services or Flying Clubs
(Specify in box provided below)

--

SECTION 3 – CONTACT INFORMATION

a.	Corporate Address:	
	Web Site:	
	Contact Person:	
	Title:	
	Phone Number:	
	Facsimile Number:	
	Cell Phone Number:	
	E-mail Address:	

b.	Local Address (if different):	
	Contact Person:	
	Title:	
	Phone Number:	
	Facsimile Number:	
	Cell Phone Number:	
	E-mail Address:	

c.	Authorized Representative:	
	Title:	
	Address:	
	Phone Number:	

	Legal Notice Address:	
--	-----------------------	--

SECTION 4 – BUSINESS BACKGROUND

- a. Number of Years in Business: _____
- b. Type of Fixed Base Operator and or Specialized Fixed Base Operator Aeronautical Service Activities engaged in and number of years for each type (e.g. FBO – 10 years, Aircraft Maintenance - 5 years, etc.)

	Type of Activity	Number of Years	Location (Airport)
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			

SECTION 5 – REFERENCES

Please provide the name, address and telephone number of an airport employee who supervised or is otherwise familiar with your activities at each airport where you operated during the past three (3) years (attach additional sheets as necessary):

Reference 1

Contact Person:			
Company			
Title:			
Address:			
Phone Number:		Fax Number:	
Cell Phone:		E-mail address:	

Reference 2

Contact Person:			
Company			
Title:			
Address:			
Phone Number:		Fax Number:	
Cell Phone:		E-mail address:	

Reference 3

Contact Person:			
Company			
Title:			
Address:			
Phone Number:		Fax Number:	
Cell Phone:		E-mail address:	

Reference 4

Contact Person:			
Company			
Title:			
Address:			
Phone Number:		Fax Number:	
Cell Phone:		E-mail address:	

SECTION 6 – MANAGEMENT EXPERIENCE

Please submit a resume of the owner or manager who will supervise the activities of the FBO or SFBO at the Airport. Please be sure that the experience of such owner or manager, including type of experience, number of years of experience and number of years of experience at particular airports are included in the resume:

SECTION 7 – SPACE REQUIREMENTS

Indicate the amount, type and preferred location of space needed to support the activity (administrative, operational and other needs):

	Type of Space	Approximate Size (Square Feet)	Preferred Location On Airport
1.	Office		
2.	Breakroom		
3.	Equipment Parking		
4.	Storage (air-conditioned)		
5.	Storage (no air-conditioning)		

6.	Hangar		
7.	Building		
8.	Other (specify)		
9.			
10.			

SECTION 8 – ADDITIONAL INFORMATION

- a. The following items must be on hand prior to start of operations:
- A fully executed Agreement with the Titusville-Cocoa Airport Authority
 - A security deposit
 - Proof of insurance (Insurance Certificate) as required by the type of agreement
 - Copies of all signed contracts between the applicant and airline(s) currently serving Space Coast Regional Airport, together with the required written statement from the airline(s).
- b. Return this completed application, along with the items listed below, to the:
- Executive Director
Titusville-Cocoa Airport Authority
355 Golden Knights Blvd.
Titusville, FL 32780
- All Items Outlined in Section 3 of these Minimum Standards.

Signature

Print Name

Date

Phone Number

APPENDIX “B” – BUSINESS PLAN CRITERIA

1. All services that will be offered should be listed and confirmation of all required certification provided.
2. Amount of land or building space desired to lease.
3. Building space that will be constructed and the site and floor plan proposed or existing structures to be leased within any proposed modifications.
4. Number of aircraft that will be provided for each service being offered.
5. Equipment and special tooling to be provided.
6. Number of persons to be employed.
7. Short resume for each of the owners (5% or more equity) and financial backers and supervisory personnel.
8. Short resume of the manager of the business including this person’s experience and background in managing a business of this nature.
9. Periods (days and hours) of proposed operation including a proposed holiday schedule.
10. Amounts and types of insurance coverage to be maintained.
11. Financial projections for the first year by quarter and the succeeding 4 years annualized.
12. Methods to be used to attract new business (advertising and incentives).
13. Amenities to be provided to attract business.
14. Plans for physical expansion, if business should warrant such expansion.

APPENDIX “C” – INSURANCE REQUIREMENTS

Type of Insurance	Minimum Limits	When Needed
Workmen’s Compensation	Statutory	Statutory
Aircraft Liability	Risk Analysis	For all owned or lease aircraft General liability
Non-Owned Aircraft	Risk Analysis	Flying non-owned aircraft (such as dual flight instruction, maintenance flights, ferry flights, pilot service, sales demonstrations)
Airport Premises Liability	Risk Analysis	Airport premises are owned or leased by tenant
Products and Completed Ops.	Risk Analysis	Aircraft repair, or services, fuel, and oil sales, aircraft sales, avionics repair, aircraft parts and manufacturing
Builders Risk	Risk Analysis	Construction projects
Contractual Liability	Risk Analysis	Hold Harmless and Indemnification Agreement is included in a lease
Property Insurance	Replacement Value	Covers physical damage of lease hold premises, damage to premises leased from the airport.
Automobile Liability	Statutory Minimum	Owned and non-owned licensed vehicles are driven on the airport premises.
Chemical Liability	Usually Statutory	Aerial applicators and fire bombers.
Environmental	Risk Analysis	(Investigate state and federal limits and financial assistance).

**MASTER SERVICE AGREEMENT
AIRPORT MASTER PLAN UPDATE
SPACE COAST REGIONAL AIRPORT (TIX)**

THIS MASTER SERVICE AGREEMENT (the “Agreement”), made and entered into on _____ 2022, by and between the TITUSVILLE-COCOA AIRPORT AUTHORITY (the “Authority”) and RICONDO & ASSOCIATES, INC. (the “Consultant”).

WITNESSETH:

WHEREAS, the Authority as a dependent special district pursuant to section 189.429, Florida Statutes, is authorized to contract for technical services that may be required; and

WHEREAS, the Authority desires to update its airport master plan (the “Master Plan”) for the Space Coast Regional Airport (“TIX”) as is required from time to time by applicable Federal Aviation Administration (“FAA”) regulations (hereinafter referred to the “Project”); and

WHEREAS, the Consultant is willing and able to perform the services to be performed under this Agreement and in relation to the Project upon the terms and conditions set forth herein; and

WHEREAS, a Request for Qualifications for Master Planning Services, RFQ 2022-001 (the “RFQ”), was issued on March 24, 2022 and the Consultant provided the requested Statement of Qualifications (the “SOQ”) and was selected among all of the SOQs received by Authority as the best qualified and capable respondent to fulfill the tasks in that underlying RFQ’s scope of services; and

NOW, THEREFORE, in consideration of the premises and of the mutual covenants hereinafter contained, it is agreed by and between the parties as follows:

ARTICLE I - SCOPE OF SERVICES

1. The Consultant agrees to update the Master Plan for TIX in compliance with FAA Advisory Circular (AC) 150/5070-6B, Change 2, “Airport Master Plans,” the Florida Department of Transportation’s (the “FDOT”) “Airport Master Plan Guidebook (2021)” and in accordance with the specified Tasks and Scope of Work listed in Attachment A – Scope of Services appended hereto and incorporated herein by reference, and to perform other services that may be directed to the Consultant by Authority in relation to the Project.
2. The Consultant may be issued one or more written task orders (each a “Task Order”) during the term of this Agreement. Individual Task Orders submitted by Authority to the Consultant shall address the scope of services, deliverables, cost, time schedule, and any other items deemed necessary by Authority for the successful completion of the task identified in the Task Order. Cost limits and fixed fee amounts for individual Task Orders will be negotiated at the time each Task Order is issued and will be included in the final Task Order. In the event of a conflict between the terms and conditions of this Agreement and a Task Order, the terms and conditions of this Agreement shall control.
3. The Consultant agrees to furnish all labor, materials, services, equipment, tools, and other expenses necessary to diligently and timely perform the professional services required under this Agreement and in compliance with the provisions of Attachment A to this Agreement.

4. The Consultant agrees to comply with all requirements and terms contained in the RFQ which is incorporated into this Agreement by reference. In the event of an express conflict between the RFQ and the terms of this Agreement, this Agreement shall control.

ARTICLE II - PERFORMANCE

1. The term of this Agreement shall be from the date first written above through and including the date Consultant concludes its work on the Project, unless an extension of the term of this Agreement is agreed to in writing signed by all parties to this Agreement and approved by appropriate official action of the governing body of the Authority prior to such term expiration date.
2. In the event that the Consultant performs or causes to be performed any work after: (a) the Agreement's expiration date as set forth within this Agreement, as it may be amended from time to time as set forth above; or (b) termination of this Agreement prior to the expiration date set forth within this Agreement; then the Authority shall make no payment for work performed following the expiration or termination dates, and the Consultant shall forfeit any and all right to payment for such work unless such work is performed after said termination with the express, written authorization of the Authority.
3. The Consultant, on behalf of itself, its officers, directors, shareholders, employees, independent contractors, representatives, attorneys, agents, and assigns, does hereby waive, release, and forever discharge the Authority, and its officers, directors, employees, independent contractors, representatives, attorneys, agents, and assigns, from any and all claims, demands, liens, liability, actions, causes of action, and suits for damages, at law and in equity, in any way connected with or arising from the Consultant's provision of services and work performed following termination of this Agreement, and/or following the expiration date of this Agreement, as it may be amended from time to time through written amendment signed by the parties hereto and approved by appropriate official action of the Authority's governing body, prior to such expiration date.
4. Neither the Authority nor its officers, directors, agents, contractors, and employees shall have authority to extend this Agreement beyond the expiration date set forth within this Agreement unless such extension is set forth within a written amendment signed by the parties hereto and approved by appropriate official action of the Authority's governing body prior to such expiration date. The Consultant shall not rely upon any oral or written representations expressed extrinsic to a written amendment signed by the parties hereto and approved by appropriate official action of the Authority's governing body prior to such expiration date, purporting to alter or amend this Agreement, including, but not limited to, representations relating to the extension of the Agreement's expiration date.
5. Paragraphs 1 through 6 of this Article II - Performance shall survive the termination and expiration of this Agreement.
6. The Consultant shall not proceed with work until the Consultant receives a written "Notice to Proceed" (each a "NTP") from the Authority. Upon receipt of the NTP, the Consultant shall begin to perform the work set forth in the Scope of Services (Attachment A). If the Consultant does commence said work prior to receiving the NTP or performs work not identified in Attachment A, at the request of the Authority, the Consultant does so at its own risk.
7. In the event the Authority discovers a Consultant's error or omission before its discovery by the Consultant, the Authority shall not unreasonably delay in notifying Consultant of such error or

omission in writing. Authority's notice to Consultant shall specify the maximum time period Consultant will be allowed for correction. The Consultant shall make all necessary corrections resulting from its errors and omissions and shall without delay make any corrections necessitated by the negligence, lack of adequate resources, or any other cause within the Consultant's control, and shall make such corrections without additional compensation. Consultant shall track all related costs for the correction. Acceptance of the professional services by the Authority will not relieve the Consultant of the responsibility for any subsequent correction of any such errors and omissions, and the clarification of any ambiguities. The Consultant will be responsible for additional costs in subsequent, related services and/or actions resulting from its errors or omissions. Should the Authority use its own personnel and/or resources to remedy the deficiency, all such costs incurred by the Authority shall be deducted from the sum due or which may become due to the Consultant. In the event all such costs and charges incurred by the Authority exceed the sum which would have been payable under this Agreement, then the Consultant shall reimburse the Authority the amount of said excess within thirty (30) days of receipt of written notice from Authority requesting payment of same.

8. The Consultant shall assign one (1) individual throughout the period of this Agreement who shall have overall Project responsibility unless illness or termination requires replacement. In the event Consultant wishes to change the assigned individual, it shall provide advanced, written notice of the change to Authority. Authority shall be entitled to rely on the decisions and representations of said individual, who shall have the actual and apparent authority to bind Consultant to said decisions and representations.
9. A key person is defined as any individual identified by the Consultant in its Statement of Qualifications (the "SOQ") proposal as being part of the team to be assigned to the Project. The Consultant acknowledges and agrees that the award reflected in this Agreement was based, in material part, on its ability to manage the Project and the qualifications, experience, and capacity of the Consultant's aforementioned key persons, employees, agents and team. The Consultant represents, warrants, and covenants that such key persons are, and will continue to be, available to undertake and perform all services identified herein and fulfill the roles identified in its SOQ. The Consultant shall notify the Authority in writing within ten (10) calendar days when a key person leaves the Project team.
 - a. If a key person leaves the Project team, the Consultant shall promptly propose a replacement within thirty (30) calendar days to and for the Authority's review and written consent.
 - b. The Authority shall have the unilateral right to terminate this Agreement:
 - i. If a key person leaves the Project team for a reason other than death, retirement, incapacitation, or leaving Consultant's employment (including the employment with Consultant's affiliates, subsidiaries, and parent companies/organizations);
 - ii. If a key person listed by the Consultant in its proposal to perform or supervise various aspects of design is changed or leaves the Project team; or
 - iii. If the Authority does not accept the Consultant's proposed key person replacement; or
 - iv. If any material delay in the appointment of key person(s) replacement(s) by Consultant results in unreasonable delay to the Project as determined by Authority in its reasonable discretion.
10. If this Agreement is terminated pursuant to the above, the Consultant shall be paid for actual costs incurred for all services rendered and accepted by the Authority along with an amount of fee proportional to the work completed as of the date of termination with said amounts for completed

work corresponding to the amounts set forth generally in Consultant's bid documents for the Project as accepted by the Authority. Additionally, the Consultant shall not be entitled to any settlement costs, if any. Such termination will not occur if the Consultant provides a key person replacement that is acceptable to the Authority within thirty (30) calendar days of the date when the key person is changed or has left the Project team.

11. The Consultant shall at all times maintain control over and have complete responsibility for all services performed pursuant to this Agreement by the Consultant and any of its subcontractors.
12. The Consultant warrants that all deliverables and professional services produced under this Agreement shall be completed in a workmanlike manner consistent with standards in the trade, profession, or industry. The standard of care applicable to Consultant's services will be that degree of skill and diligence normally employed by consultants performing the same or similar services at the time said services are performed. To the extent there is any dispute between the parties concerning the provisions of this paragraph and quality of work performed by Consultant, the Authority's position and decision on the same shall control as long as the Authority's position and decision is not arbitrary or unreasonable.
13. This Agreement and any authorized amendments may be suspended temporarily, either wholly or in part, by the Authority upon oral notice confirmed in writing within ten (10) calendar days, when the Authority determines that conditions beyond the control of the Consultant are unfavorable to its satisfactory continuation of work. Should such conditions be encountered, the time for completion may be extended in an amount determined by the Authority to be equivalent to the delay. Requests for suspension of time by the Consultant must have the written approval of the Authority to be relied upon and effective. No allowance shall be made for delay or suspension of the services solely due to the fault of the Consultant.
14. Any amendment ordered by the Authority in writing which changes the services provided for by the express terms of this Agreement will be considered extra professional services and shall be specified in a written amendment signed by all parties hereto, which will set forth the nature and scope thereof. The method of payment for extra professional services shall be specified at the time the amendment is written. No verbal or oral changes to the scope of services to be provided by Consultant pursuant to this Agreement shall be effective or shall alter or modify this Agreement in any way unless in writing and signed by all parties hereto. Consultant shall not perform any services not expressly provided by and in this Agreement except as set forth in this paragraph.
15. The Consultant shall not assign or subcontract any or all of the professional services performed under this Agreement without the prior written approval of the Authority. The Consultant will, subsequent to obtaining written approval from the Authority, provide the Authority with a copy of the contract or agreement for professional services.
16. The Consultant shall require its subcontractors to comply with all provisions of 48 C.F.R. Chapter 1, Part 31, and, if the subcontract agreement exceeds One Hundred Thousand and No/00 Dollars (\$100,000.00), the subcontract agreement shall also comply with Paragraph 17 in of this Article. The Consultant will be responsible for any costs or deficiencies resulting from noncompliance if the subcontractors fail to comply with 48 C.F.R. Chapter 1, Part 31, and shall indemnify and hold Authority harmless from same. Any attempted assignment of rights or delegation of duties under this Agreement without the prior written consent of the Authority shall be void.

17. There are no Disadvantaged Business Enterprise (DBE) program goals for this Agreement. However, the Authority, in accordance with Title VI of the Civil Rights Act of 1964 and 49 C.F.R. Part 26, hereby notifies all bidders and proposers that it will affirmatively ensure that in regard to any contract entered into, certified DBE firms will be afforded full opportunity to submit bids and proposals in response to our invitation and will not be discriminated against on the grounds of race, color, sex, age, disability, or national origin in consideration for an award. Although there is no contract-specific goal associated, the Authority encourages Consultant to make the same effort to ensure nondiscrimination in the award and administration of subcontracts, to help remove barriers to the participation of DBEs, and to assist in the development of firms that can compete successfully in the marketplace outside the DBE program.
18. This Agreement is contingent upon the verification that the Consultant has a valid and active Florida Business License and is in good standing in all areas of the Secretary of State's business requirements. If the Consultant is an out of state provider, the Consultant must be registered as a foreign business entity equivalent in Florida, in active status, and in good standing.

ARTICLE III - TERMINATION

1. The Authority may terminate this Agreement without cause thirty (30) calendar days after service of a termination letter to the Consultant. In the event this Agreement is terminated in this manner, the Consultant shall be paid for the actual cost of the professional services which have been completed and accepted by the Authority up to the date of termination with said cost for completed work corresponding to the amounts set forth generally in Consultant's bid documents for the Project as accepted by the Authority.
2. This Agreement is subject to and contingent upon sufficient funds being appropriated, budgeted, and otherwise made available by the Federal Aviation Administration (FAA) and/or Florida Department of Transportation (FDOT) sources. The Authority may terminate this Agreement, and the Consultant waives any and all claims for damages, effective immediately upon receipt of written notice, or any date specified therein, if for any reason the Authority's funding from federal and/or state sources is not appropriated or is withdrawn, limited, or impaired.
3. A default or breach may be declared with or without termination. This Agreement may be terminated by either party upon written notice of default or breach to the other party as follows:
 - a. If, in the Authority's sole but reasonable discretion, the Consultant fails to provide or satisfactorily perform any of the professional services called for by this Agreement within the time requirements specified in this Agreement or within any granted extension of those time requirements; or
 - b. If any state, county, city, or federal license, authorization, waiver, permit, qualification, or certification required by statute, ordinance, law, or regulation to be held by the Consultant to provide the goods or services required by this Agreement is for any reason denied, revoked, debarred, excluded, terminated, suspended, lapsed, or not renewed; or
 - c. If the Consultant becomes insolvent, subject to receivership, or becomes voluntarily or involuntarily subject to the jurisdiction of a bankruptcy court; or
 - d. If Authority materially breaches any material duty under this Agreement and any such breach impairs the Consultant's ability to perform; or

- e. If it is found by the Authority that any quid pro quo or gratuities in the form of money, services, entertainment, gifts, or otherwise were offered or given by the Consultant, or any agent or representative of the Consultant, to any officer or employee of the Authority with a view toward securing an agreement or securing favorable treatment with respect to awarding, extending, amending, or making any determination with respect to the performing of such agreement; or
 - f. If the Consultant knowingly bills the Authority for unallowable costs or non-bona fide goods or services, or for goods and services not provided.
4. Termination upon a declared default or breach may be exercised after service of written notice and the subsequent failure of the defaulting party, within fifteen (15) calendar days of service of that notice, to provide evidence, satisfactory to the aggrieved party, showing the declared default or breach has been corrected or, to the extent such default cannot be entirely cured within said 15-day period, that the breaching party has commenced reasonable corrective action and thereafter diligently pursues such corrective action until the breach is cured. Such correspondence shall be deemed to have been served on the date of postmark or, to the extent such written notice is provided by email, on the date identified in said email as the date of delivery to the receiving party.
 5. In the event of the Consultant's breach of this Agreement, all costs and charges incurred by the Authority, together with the cost of completing the work under this Agreement, shall be deducted from any money due or which may become due to the Consultant, and Authority may withhold any such payment(s) due Consultant until such costs and charges are reasonably known to Authority. If expenses exceed the sum which would have been payable under this Agreement, then the Consultant shall be liable and shall pay to the Authority the amount of said excess.
 6. This Agreement shall be terminated when the professional services contemplated and covered by this Agreement and any related amendments have been completely performed by the Consultant, all items of professional services have been approved and accepted by the Authority, and final payment is made and accepted.

ARTICLE IV - COST

1. "The lump sum" method of compensation shall be used for the Consultant's services.
2. The total cost of the services by the Consultant for the PROJECT shall not exceed the sum of Seven Hundred Seventy-Seven Thousand Six Hundred Fourteen Dollars and Fifty-Three Cents (\$777,614.53). Funds not used during the term of this Agreement will not be paid to the Consultant.
3. The total amount payable by the Authority for the PROJECT shall not exceed the amount agreed to in this Agreement, unless additional funds are agreed to by written amendment and signed by all parties hereto.
4. The cost of the work to be performed under this Agreement will be paid for by the Authority monthly and upon acceptance of the work.
5. No additional costs shall be allowed to the Consultant for assistance by or services of others except by express permission in writing by the Authority.

6. The Authority shall pay the Consultant in installments, based upon monthly progress reports showing the status of the professional services, and the degree of completion. The Authority, at its discretion, may, by written notification, waive this limitation.
7. The Consultant's cost billing, reimbursement, and audit will be accomplished in accordance with the federal cost principles set forth in 48 CFR Chapter 1, Part 31.
8. The Consultant is required to submit a monthly progress report in the Authority's format showing the status of the professional services and the degree of completion thereof.

ARTICLE V - SCHEDULE OF PAYMENTS

1. The Consultant shall submit a signed invoice monthly for all services rendered along with one (1) copy of substantiating documentation. The invoice must be submitted on the Consultant's stationery using a format acceptable by the Authority. The Authority will utilize its normal accounting procedure in the payment of the invoices submitted.
2. The Authority reserves the right to inspect and approve the professional services performed before payment is made to the Consultant. Payment will be withheld for deliverables and professional services the Authority determines in its sole but reasonable discretion to be unsatisfactory in that they have not been provided in a workmanlike manner consistent with standards in the trade, profession, or industry. Payment shall remain unpaid until the professional services are completed in accordance with the standards and work requirements defined in this Agreement. In such an event, the Authority will provide the Consultant with a written explanation as to why payment has been withheld.
3. The total cost of services for this Agreement is the negotiated amount identified in Article IV, Paragraph 2. This amount was based upon the Consultant's labor and expenses as well as the costs and fixed fees of all of its subcontractors. If a subcontractor does not expend all funds allocated to it pursuant to Contractor's bid for services identified in its agreement with the Consultant, Consultant shall not redistribute or expend such funds without the prior written approval of the Authority. Failure to notify the Authority prior to the use of such funds will constitute grounds for denial of reimbursement for such expenditures or, to the extent such reimbursement has already been paid to Consultant, Consultant shall repay such reimbursement to Authority in full.
4. Payment of invoices, interest penalties, and discounts shall be paid as follows:
 - a. The Consultant shall be paid within thirty (30) calendar days after receipt of federal funds approved for a postmarked invoice which is complete, correct, and undisputed by the Authority.
 - b. The Authority shall have twenty-one (21) calendar days after postmark of an invoice to dispute any or all of the charges on that invoice. The undisputed amount shall be paid to the Consultant within thirty (30) calendar days after receipt of the federal funds for the approved invoice. The disputed amount shall be negotiated and resolved in good faith by both parties hereto and paid within thirty (30) calendar days after the date the corrected invoice is received by the Authority or is approved by both parties hereto for payment.
 - c. If the Authority fails to pay the Consultant the undisputed amount within sixty (60) calendar days after receipt of federal funds for the approved invoice, the interest penalty assessed to the

Authority shall be one percent (1%) of the undisputed amount per month, not to exceed a total of One Thousand and No/100 Dollars (\$1,000.00).

- d. Payment of penalties shall not apply to the final payment or bill pertaining to this Agreement as determined by the post audit.
5. The prevailing party in any action arising from and/or related to this Agreement is entitled to recover its reasonable attorney's fees and costs incurred in such action from the non-prevailing party.

ARTICLE VI – INDEMNIFICATION

Consultant shall indemnify and hold harmless Authority and its officers, directors, employees, agents and assigns from any and all liability, losses or damages, including reasonable attorneys' fees and costs of defense, that Authority incurs or may incur as a result of claims, demands, suits, causes of action or proceedings of any kind or nature arising out of, relating to or resulting from the negligence or wrongful acts and/or omissions of Consultant and/or its officers, directors, employees, agents, subcontractors or assigns. Consultant shall pay all claims and losses in connection therewith and shall investigate and defend all claims, suits or action of any kind or nature in the name of Authority, where applicable, including appellate proceedings, and shall pay costs, judgments and reasonable attorney's fees which may issue thereon. Consultant expressly understands and agrees that any insurance protection required by this Lease or otherwise provided by Consultant shall in no way limit its responsibility to indemnify, keep and save harmless and defend the Consultant and/or its officers, directors, employees, agents, subcontractors or assigns as herein provided. The obligation of Consultant hereunder shall survive the termination of this Agreement. Consultant's obligation to indemnify Authority hereunder shall in no way affect, abridge or amend Authority's right to assert governmental or sovereign immunity as to any claims, other than those by the parties or their respective permitted transferees and assignees, including without limitation the immunity afforded under section 768.28, Florida Statutes.

ARTICLE VII – MISCELLANEOUS PROVISIONS

1. The Consultant shall be responsible for and shall comply with all applicable federal, state, and local government obligations and Authority policies and procedures. The Consultant will be responsible for and shall pay all taxes, assessments, fees, premiums, permits, and licenses required by law. The Consultant warrants that it has a valid business license. The Consultant agrees to be responsible for and shall pay any such government obligations not paid by its subcontractors during performance of this Agreement. The Authority may set-off any consideration due against any delinquent government obligation.
2. It is expressly understood that the Consultant is an independent contractor and is subject to all federal and state statutes and laws relating to independent contractors. Nothing contained in this Agreement shall be deemed or construed to create a partnership or joint venture, to create relationships of an employer-employee or principal-agent, or to otherwise create any liability for the Authority whatsoever with respect to the indebtedness, liabilities, and obligations of the Consultant or any other party. Neither the Consultant nor its employees, agents or representatives shall be considered employees, agents, or representatives of the Authority.
3. The Consultant shall be solely responsible for its own employees, and the Authority shall have no obligation with respect to:

- a. Withholding of income taxes, FICA, or any other taxes or fees;
 - b. Industrial insurance coverage;
 - c. Participation in any group insurance plans available to employees of the Authority;
 - e. Accumulation of vacation leave or sick leave; and/or
 - f. Unemployment compensation coverage provided by the Authority.
4. The Consultant shall indemnify and hold the Authority harmless from, and defend the Authority against, any and all losses, damages, claims, costs, penalties, liabilities, and expenses arising or incurred because of, incident to, or otherwise with respect to any such taxes, fees, insurance, contributions, leave, or coverage.
 5. Unless expressly provided in this Agreement, the Consultant shall not engage or use the devices and/or services of the Authority's personnel without the prior written consent of the Authority.
 6. The Consultant shall, before commencing professional services under the provisions of this Agreement, furnish to the Authority proof of worker's compensation insurance as required by the State of Florida.
 7. The Consultant shall furnish a Certificate of Errors and Omissions Insurance with a minimum limit of One Million and No/100 Dollars (\$1,000,000.00).
 8. The Consultant shall furnish a Certificate, a Declarations Page, and an Endorsement designating the Authority as an additional insured evidencing Commercial General Liability Insurance with a minimum limit of One Million and No/100 Dollars (\$1,000,000.00) per occurrence. These policies shall be maintained for the entire period that work is conducted under this Agreement. The Consultant shall provide replacement evidence of insurance no less than thirty (30) calendar days prior to the date of expiration. The policies shall include a thirty (30) calendar day advance written notice of any cancellation of said policies. The Consultant shall furnish the Authority with certificates of such insurance prior to commencement of professional services.
 9. All insurance required by this Agreement shall be placed with insurers with a rating from the current issue of Best's Key Rating Guide of no less than A-: VII.
 10. The Authority has the option of requesting, at any time, a meeting with the Consultant or its authorized representative to discuss and review Project status.
 11. The Consultant has total responsibility for the accuracy and correctness of written data prepared under the terms of this Agreement and shall check all such material accordingly for completeness, missing items, correct multipliers, and consistency. The deliverables shall be reviewed by the Authority for conformity with the Authority's procedures and contract terms. The Consultant acknowledges that review by the Authority does not include detailed review or checking of major components and related details or the accuracy of such deliverables, and the Authority's review shall not relieve the Consultant of its total responsibility for the accuracy and correctness of data prepared under the terms of this Agreement.
 12. The Consultant shall appear as a consultant and, if necessary, as an expert witness on behalf of the Authority in any subsequent court action which involves any of the services required by this

Agreement. Compensation for services rendered in this regard will be paid at a rate to be negotiated at the time such services are necessary.

13. Upon completion, termination, or cancellation of the services embraced under this Agreement, all professional services inclusive of research, investigation, analysis data, reports (including files stored on mobile media), computations, tabulations, original drawings and digital design files (including CAD information stored on mobile media), correspondence input from external sources (including subcontractors), etc., shall be delivered to and become the property of the Authority, without limitation. Reuse of said materials, information or data, during performance or following termination of this Agreement, on any other project or for any other purpose except as provided for herein, shall be at the Authority's sole decision. The Consultant shall not utilize any materials, information, or data obtained as a result of performing the services called for in this Agreement in any commercial or academic publication or presentation without the express written permission of the Authority. The Consultant shall not reference an opinion of an employee or agent of the Authority obtained as a result of performing the services called for in this Agreement, in any publication or presentation, without the written permission of the employee or agent to whom the opinion is attributed, in addition to the written permission of the Authority.
14. All digital copies of reports, graphic data, and other materials shall be delivered to the Authority via a project-specific Dropbox folder. Files shall be prepared using the most current version of Microsoft Word, Microsoft Excel, Microsoft PowerPoint, and AutoCAD. Geographic information systems (GIS), drawings, maps, and other GIS data shall be delivered via Environmental Systems Research Institute (ESRI) data formats or Google Earth Pro KMZ or KML file formats as appropriate for those work products.
15. The Consultant agrees that any reports, materials, studies, photographs, negatives, drawings, or other documents prepared by the Consultant in the performance of its obligations under this Agreement shall be the exclusive property of the Authority. The Consultant shall remit all such documents to the Authority upon completion, termination, or cancellation of this Agreement or upon written request of the Authority. The Consultant shall not use, willingly allow, or cause to have such documents used for any purpose other than performance of the Consultant's obligations under this Agreement, without the prior written consent of the Authority.
16. The Consultant and successors, executors, administrators, and assigns of the Consultant's interest in the professional services or the compensation herein provided shall be bound to the Authority to the full legal extent to which the Consultant is bound with respect to each of the terms of this Agreement.
17. The Consultant warrants that it has not employed or retained any company or persons (other than a bona fide employee working solely for the Consultant) to solicit or secure this Agreement and that the Consultant has not paid or agreed to pay any company or persons (other than a bona fide employee working solely for the Consultant) any fee, commission, percentage, brokerage fee, or any other gifts contingent upon or resulting from the award or making of this Agreement. For breach or violation of this warranty, the Authority shall have the right to annul this Agreement without liability, or, in its discretion, to deduct from the Agreement price or consideration, or otherwise recover, the full amount of such fee, commission, percentage, brokerage fee, gift, or contingent fee.
18. Any dispute arising under this Agreement as to performance, compensation, and the interpretation of satisfactory fulfillment of the terms of this Agreement shall be decided by the Authority. It is the intent of the Authority to resolve disputes at the lowest level possible. Nothing herein contained shall

impair either of the parties' right to file suit in the state district courts of the State of Florida. The parties further agree that sole and exclusive jurisdiction and venue for any action arising from and/or related to this Agreement shall lie irrevocably in the state courts in and for Brevard County, Florida, forsaking all other jurisdictions and venues and without regard to forum non conveniens.

19. During the performance of this Agreement, the Consultant, for itself, its assignees and successors in interest agrees as follows:

- a. Compliance with Regulations: The Consultant shall comply with all of the regulations relative to nondiscrimination in federally-assisted programs of 49 CFR Part 21 as they may be amended from time to time (hereinafter "Regulations"), which are herein incorporated by reference and made a part of this Agreement.
- b. Nondiscrimination: The Consultant, with regard to the professional services performed by it during the Agreement, shall not discriminate on the grounds of race, color, age, religion, sex, creed, handicap, or national origin in the selection and retention of subcontractors, including procurement of materials and leases of equipment. The Consultant shall not participate either directly or indirectly in the discrimination prohibited by Section 21.5 of the Regulations, including employment practices, when the Agreement covers a program set forth in Appendix B of the Regulations.
- c. Solicitations for Subcontracts, Including Procurement of Materials, and Equipment: In all solicitations either by competitive bidding or negotiation made by the Consultant for professional services to be performed under a subcontract, including procurement of materials or leases of equipment, each potential subcontractor or supplier shall be notified by the Consultant of the Consultant's obligations under this Agreement and the Regulations relative to nondiscrimination on the grounds of race, color, age, religion, sex, creed, handicap, or national origin.
- d. Sanctions for Noncompliance: In the event of the Consultant's noncompliance with the nondiscrimination provisions of this Agreement, the Authority shall impose such Agreement sanctions as it or the FAA may determine to be appropriate, including, but not limited to:
 - (1) Withholding of payments to the Consultant under the Agreement until the Consultant complies, and/or in part.
 - (2) Cancellation, termination, or suspension of the Agreement, in whole.
- e. Agreements with subcontractors will include provisions making all subcontractor records available for audit by the Authority or the FAA.
- f. Incorporation of Provisions: The Consultant will include the provisions of Paragraphs (a) through (f) above in every subcontract including procurement of materials and leases of equipment, unless exempt by Regulations, order, or instructions issued pursuant thereto. The Consultant will take such action with respect to any subcontract or procurement as the Authority or the FAA may direct as a means of enforcing such provisions, including sanctions for non-compliance. In the event Consultant becomes involved in, or is threatened with, litigation by a subcontractor or supplier as a result of such direction, the Consultant may request the Authority to enter into such litigation to protect the interests of the Authority, and the Consultant may request the United States to enter into such litigation to protect the interests of the United States.

20. Since federal funds shall be used for payment of all or part of this Agreement, the Consultant, for itself, its assignees, and successors in interest agrees as follows:
- a. Debarment and/or Suspension: The Consultant certifies that neither it nor its subcontractors, nor their principals are presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any federal Authority or agency. Consultant is subject to suspension and debarment actions as specified in 2 CFR Part 1200 and 2 CFR Part 180, potential cause of action under the False Claims Act as specified in 32 U.S.C. §§ 3729-3733, inclusive, and prosecution for making a false statement as specified in 18 U.S.C. § 1020.
 - b. ADA: The Consultant and subcontractor shall comply with all terms, conditions, and requirements of the Americans with Disabilities Act of 1980, as amended, and the regulations adopted thereunder contained in 49 CFR Part 27, and any relevant program- specific regulations.
 - c. Civil Rights: The Consultant and subcontractor shall comply with the requirements of the Civil Rights Act of 1964, as amended, the Rehabilitation Act of 1973, as amended, and any relevant program-specific regulations and shall not discriminate against any employee or person offered employment because of race, national origin, creed, color, sex, religion, age, disability, or handicap condition.
21. Each party agrees to keep and maintain under generally accepted accounting principles full, true, and complete records and documents pertaining to this Agreement and present, at any reasonable time, such information for inspection, examination, review, audit, and copying at any office where such records and documentation are maintained. It is expressly understood that the duly authorized representatives of the Authority, FAA, FDOT and the Department of Transportation's Inspector General, the Comptroller General of the United States, or any of their duly authorized representatives shall have the right to inspect/audit the professional services and charges of the Consultant whenever such representatives may deem such inspection to be desirable or necessary. Such records and documentation shall be maintained for three (3) years after final payment is made.
22. The Consultant shall use its own vehicles, and the Authority is not responsible for the payment of any premiums, deductibles, or assessments on any insurance policies purchased by the Consultant.
23. The Consultant warrants that all deliverables and work produced under this Agreement shall be completed in a workmanlike manner consistent with standards in the trade, profession, or industry.
24. The Consultant agrees that, prior to any sale, transfer, business name change, change in principals, or any other occurrence that alters this Agreement in any way, the Consultant shall notify the Authority of such intent at least seven (7) calendar days prior to making said change.
25. All notices or other communications required or permitted to be given under this Agreement shall be in writing and shall be deemed to have been duly given if delivered personally in hand, by telephonic facsimile with simultaneous regular mail, or mailed certified mail, return receipt requested, postage prepaid on the date posted, and addressed to the other party at the address set forth below:

FOR Authority:

Kevin Daugherty, AAE
Director of Airports
Titusville – Cocoa Airport Authority
355 Golden Knights Blvd.
Titusville, Florida 32870
Phone: (321) 267-8780
Email: kdaugherty@flairport.com

FOR Consultant:

Pete Ricondo, P.E.
Senior Vice President
Ricondo & Associates, Inc.
1000 NW 57th Court, Suite 920
Miami, FL 33126
Phone: (305) 260-2727 x251
Email: pricondo@ricondo.com

26. This Agreement and the rights and obligations of the parties hereto shall be governed by, and construed according to, the laws of the State of Florida.
27. As used herein the term “Consultant” shall include the plural as well as the singular, and the feminine as well as the masculine.
28. Neither party shall be deemed to be in violation of this Agreement if it is prevented from performing any of its obligations hereunder for any reason beyond its control, including, without limitation, strikes, inmate disturbances, acts of God, civil or military authority, act of public enemy, or accidents, fires, explosions, earthquakes, floods, winds, failure of public transportation, or any other similar serious cause beyond the reasonable control of either party. In such an event the intervening cause must not be through the fault of the party asserting such an excuse, and the excused party is obligated promptly to perform in accordance with the terms of this Agreement after the intervening cause ceases.
29. In connection with the performance of work under this Agreement, the Consultant agrees not to discriminate against any employee or applicant for employment because of race, color, religion, sex, national origin, age, disability, pregnancy, sexual orientation, genetic information (GINA) or gender identity or expression, including, without limitation, with regard to employment, upgrading, demotion or transfer, recruitment or recruitment advertising, layoff or termination, rates of pay or other forms of compensation, and selection for training, including without limitation apprenticeship. The Consultant further agrees to insert this provision in all subcontracts hereunder, except subcontracts for standard commercial supplies or raw materials.
30. The Consultant shall keep confidential all information, in whatever form, produced, prepared, observed, or received by the Consultant to the extent that such information is confidential by law or otherwise required by this Agreement.

31. Pursuant to Florida Statutes, information or documents may be open to public inspection and copying. The Authority will have the duty to disclose unless a particular record is confidential by law or otherwise exempt from disclosure pursuant to chapter 119, Florida Statutes.
32. The illegality or invalidity of any provision or portion of this Agreement shall not affect the validity of the remainder of the Agreement and this Agreement shall be construed as if such provision did not exist. The unenforceability of such provision shall not be held to render any other provision or provisions of this Agreement unenforceable.
33. Authority and Tenant agree this Agreement is the result of negotiation between the parties hereto and has been typed/printed by one party for the convenience of both parties, and the parties covenant that this Agreement shall not be construed in favor of or against any of the parties hereto or against the “drafter” hereof.
34. Except as otherwise provided for by law or this Agreement, the rights and remedies of the parties hereto shall not be exclusive and are in addition to any other rights and remedies provided by law or equity, including, without limitation, the recovery of actual damages and the prevailing party’s reasonable attorney’s fees and costs.
35. It is specifically agreed between the parties executing this Agreement that it is not intended by any of the provisions of any part of this Agreement to create in the public or any member thereof a third party beneficiary status hereunder, or to authorize anyone not a party to this Agreement to maintain a suit for personal injuries or property damage, or pursuant to the terms or provisions of this Agreement.
36. The parties hereto represent and warrant that the person executing this Agreement on behalf of each party has full power and authority to enter into this Agreement and that the parties are authorized by law to perform the services set forth herein.
37. This Agreement constitutes the entire agreement of the parties and such is intended as a complete and exclusive statement of the promises, representations, negotiations, discussions, and other agreements that may have been made in connection with the subject matter hereof. Unless an integrated attachment to this Agreement specifically displays a mutual intent to amend a particular part of this Agreement, general conflicts in language between any such attachment and this Agreement shall be construed consistent with the terms of this Agreement. Unless otherwise expressly authorized by the terms of this Agreement, no modification or amendment to this Agreement shall be binding upon the parties unless the same is in writing and signed by the respective parties hereto and the Attorney General.
38. At the end of the term of this Agreement described in Article II – Performance, Paragraph 1, the Consultant will be evaluated, and that evaluation may be used for evaluation of future procurements.

(Signature Page Follows)

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK]

IN WITNESS WHEREOF, the authorized representatives of the Consultant and the Authority have caused their names to be signed hereon on the date first above written.

Signed, Sealed and Delivered
in the presence of:

Witness

Witness

AUTHORITY:
TITUSVILLE-COCOA AIRPORT AUTHORITY

By: _____
Kevin Daugherty, AAE
Director of Airports

Attest: _____
Name: _____
Position: _____
(corporate seal)

Kimberley Davis
Witness

Ganett Bond
Witness

CONSULTANT:
RICONDO & ASSOCIATES, INC.

By: _____
Printed Name: _____ Pete Ricondo, P.E.

Printed Title: _____ Senior Vice President

Attest: [Signature]
(corporate seal)



Attachment A



May 2022

Space Coast Regional Airport

Master Plan Update Scope of Services

Prepared for:

Titusville-Cocoa Airport Authority

Prepared by:

RICONDO

In association with:

American Infrastructure Development, Inc.

Brown & Phillips, Inc.

Martinez Geospatial, Inc.

The Quotient Group

Ricondo & Associates, Inc. (Ricondo) prepared this document for the stated purposes as expressly set forth herein and for the sole use of Titusville-Cocoa Airport Authority and its intended recipients. The techniques and methodologies used in preparing this document are consistent with industry practices at the time of preparation and this Report should be read in its entirety for an understanding of the analysis, assumptions, and opinions presented. Ricondo & Associates, Inc. is not registered as a municipal advisor under Section 15B of the Securities Exchange Act of 1934 and does not provide financial advisory services within the meaning of such act.

TABLE OF CONTENTS

SCOPE OF SERVICES	1
Task 1A. Inventory of Existing Conditions.....	2
1A.1 Background, Airport History, and Aeronautical Role.....	2
1A.2 Inventory of Airport Physical Facilities	2
1A.2.1 Airfield	2
1A.2.2 Fixed Base Operator/General Aviation Facilities	3
1A.2.3 Support Facilities.....	3
1A.2.4 Non-Aeronautical Facilities	3
1A.2.5 Facilities Condition and Age Estimation	3
1A.3 Airspace Data	4
1A.4 Meteorological Conditions	4
1A.5 Land Use.....	4
1A.5.1 On-Airport.....	4
1A.5.2 Off-Airport	4
1A.6 Utilities	4
1A.7 Socioeconomic Data.....	5
1A.8 Environmental Conditions.....	5
1A.9 Tenant Surveys.....	6
1A.10 Prepare Draft Working Paper.....	6
1A.11 Meetings.....	6
Task 1B. Emerging Trends and Technologies.....	7
1B.1 Emerging Trends and Technologies.....	7
1B.2 Review of General Aviation Industry Trends and Factors Affecting Demand	7
Task 1C. Visioning Session With TCAA Board Members	8
1C.1 Visioning Session	8
Task 1D. Strengths and Opportunities Assessment	9
1D.1 Strengths and Opportunities Assessment	9
1D.2 Meetings.....	9
Task 1E. Stakeholder and Public Involvement.....	10
1E.1 Technical Advisory Panel	10

1E.1.1	Prepare Briefing Materials	10
1E.1.2	Attend and Moderate Technical Advisory Panel Briefings	10
1E.2	Citizens Advisory Panel.....	10
1E.2.1	Prepare Briefing Materials	11
1E.2.2	Attend and Moderate Citizens Advisory Panel Briefings.....	11
1E.3	Titusville-Cocoa Airport Authority Workshops	11
1E.3.1	Prepare Workshop Materials	11
1E.3.2	Conduct Workshops	11
1E.4	Titusville-Cocoa Airport Authority Briefings	12
1E.4.1	Prepare Briefing Materials	12
1E.4.2	Attend Board Meetings and Conduct Briefings.....	12
1E.5	Public Workshops	12
1E.5.1	Prepare Workshop Materials	12
1E.5.2	Attend Public Workshops	12
Task 2.	Aerial Surveying and Mapping	14
2.1	Project Planning / FAA Airports-GIS Coordination / Field-Survey Consultation	14
2.2	Imagery Acquisition (Flight Mission).....	14
2.3	Aero-Triangulation	15
2.4	Orthophoto Production	15
2.5	Planimetric/Topographic Mapping	15
2.6	Airspace Analysis/Obstruction Survey	15
2.7	Mapping Edit and GIS Formatting/FAA Compliance.....	15
2.8	Field-Survey Services	16
2.8.1	Establish Geodetic Control / Validate Existing PACs / SACs.....	16
2.8.2	Runway Surveys	16
2.8.3	NAVAID Surveys	16
Task 3A.	Aviation Activity Forecasts.....	18
3A.1	Analysis of Historical Activity Patterns	18
3A.2	Develop Aviation Activity Forecasts	18
3A.3	Identify Critical Aircraft.....	18
3A.4	Deliverables	19
3A.4.1	Prepare Draft Working Paper	19

3A.4.2 Prepare Final Working Paper	19
3A.5 Meetings.....	19
Task 3B. Market Assessment/Land Use Planning	20
3B.1 Highest and Best Use Assessment	20
3B.2 Meetings.....	20
Task 4. Demand/Capacity Analysis and Airport Requirements	21
4.1 Airfield	21
4.1.1 Airfield Demand/Capacity Assessment	21
4.1.2 Runway Length Requirements	21
4.1.3 Airport Requirements	21
4.2 General Aviation And Fixed Base Operator Facilities	22
4.3 Support Facilities.....	22
4.4 Landside Facilities	22
4.5 Prepare Draft Working Paper.....	23
4.6 Meetings.....	23
Task 5. Formulate Alternatives	24
5.1 Airfield Alternatives.....	24
5.2 Develop and Evaluate General Aviation Facility Concept Plans	24
5.3 Develop Support Facility Concept Plans.....	24
5.4 Develop Overall Airport Campus Concept Plans	24
5.5 Evaluate Alternatives/Concepts	24
5.6 Develop Rough Order of Magnitude Cost Estimates.....	25
5.7 Prepare Draft Working Paper.....	25
5.8 Meetings.....	25
Task 6. Environmental Overview	26
6.1 Evaluation of Proposed Development.....	26
6.2 Airport Recycling, Reuse, and Waste Reduction Plan	26
6.3 Prepare Draft Working Paper.....	27
6.4 Meetings.....	27
Task 7. Capital Improvement Program.....	28
7.1 Validation and Reprogramming of Existing Five-Year CIP	28
7.2 Coordinate Project Sequencing	28

7.3	Develop CIP and Funding Sources.....	28
7.4	Prepare Draft Project Summaries And Exhibits.....	29
7.5	Prepare Draft Working Paper.....	29
7.6	Meetings.....	29
Task 8.	Financial Plan.....	30
8.1	Collect and Review Financial Data	30
8.2	Prepare Financial Plan	30
8.2.1	Pro-Forma Analysis.....	31
8.2.2	Sensitivity Analysis.....	31
8.3	Prepare Draft of Financial Plan	31
8.4	Meetings.....	31
Task 9.	Refine the preferred Alternative	32
9.1	Alternative Refinement.....	32
9.2	Meetings.....	32
Task 10.	Airport Layout Plan Set	33
10.1	Title Sheet	33
10.2	Airport Data Sheet.....	33
10.3	Existing Airport Layout Plan	33
10.4	Airport Layout Plan	34
10.5	Airport Airspace Drawing	34
10.6	Inner Portion of the Approach Surface Drawings.....	34
10.7	Departure Surface Drawing	35
10.8	Existing Land Use Drawing.....	35
10.9	Proposed Land Use Drawing.....	35
10.10	Deliverables.....	35
10.10.1	Draft Airport Layout Plan Set	35
10.10.2	Revise Draft Airport Layout Plan and Respond to Sponsor Comments.....	36
10.10.3	Prepare Checklists According to SOP 2.00.....	36
10.10.4	Revised Draft Airport Layout Plan Set Submittal.....	36
10.10.5	Revise Draft Airport Layout Plan Set and Respond to FAA and FDOT Comments	36
10.10.6	Prepare Final Airport Layout Plan Set	36
10.11	Meetings.....	36

Task 11. Exhibit 'A' Airport Property Inventory Map.....	37
11.1 Title Work.....	37
11.2 Boundary survey.....	37
11.3 Exhibit 'A' Airport Property Inventory Map	38
11.4 Prepare Checklist According to SOP 3.00	38
11.5 Meetings.....	38
Task 12. Documentation	39
12.1 Develop PowerPoint Template.....	39
12.2 Executive Summary	39
12.2.1 Prepare Executive Summary Brochure.....	39
12.2.2 Prepare Executive Summary Powerpoint.....	39
12.3 Prepare Draft Airport Master Plan Update Report	39
12.4 Respond to Sponsor, FAA, and FDOT Comments	39
12.5 Prepare Final Airport Master Plan Update Report.....	40
Task 13. Project Administration and Coordination	41
13.1 Grant Services.....	41
13.2 Develop Monthly Status Reports.....	41
13.3 Other Meetings (In Addition To Those Identified Within The Previous Individual Tasks)	41
13.3.1 Kick-Off Meeting	41
13.3.2 TCAA Staff Coordination Calls	41
13.3.3 FAA Coordination Briefings.....	41
13.3.4 FDOT Coordination Briefing	42
Fee Proposal and Schedule of Meetings.....	42

LIST OF APPENDICES

Appendix A Ricondo & Associates, Inc. Fee Proposal

Appendix B American Infrastructure Development, Inc. Fee Proposal

Appendix C Brown & Phillips, Inc. Fee Proposal

Appendix D Martinez Geospatial Fee Proposal

Appendix E The Quotient Group, Inc. Fee Proposal

LIST OF TABLES

Table 1: Ricondo Team Firms and Project Responsibilities..... 1

Table 2: Space Coast Regional Airport Master Plan Update Fee Proposal.....43

Table 3: Space Coast Regional Airport Master Plan Update Schedule of Meetings.....44

SCOPE OF SERVICES

The Titusville-Cocoa Airport Authority (TCAA) has requested a proposal from Ricondo & Associates, Inc. (Ricondo) to prepare an Airport Master Plan Update (MPU or the Study) for the Space Coast Regional Airport (TIX or the Airport). The following work program describes the professional services and technical analyses required to successfully complete the MPU for the Airport within the Federal Aviation Administration's (FAA's) and Florida Department of Transportation's (FDOT's) framework and published guidelines for airport master planning.

Ricondo will be supported by a team of subconsultants, providing specialty services and support as listed in **Table 1**. Collectively, the firms are referred to throughout this Scope of Services as the 'Ricondo Team'.

TABLE 1: RICONDO TEAM FIRMS AND PROJECT RESPONSIBILITIES

FIRM	PROPOSED PROJECT RESPONSIBILITIES	DBE
Ricondo & Associates, Inc.	Overall Project Management and Master Plan Development, Client Coordination and Communication, and Quality Assurance/Quality Control	
American Infrastructure Development, Inc.	Engineering Feasibility, Cost Estimating, Utilities Analysis, and Stakeholder and Public Involvement	■
Brown & Phillips, Inc.	Surveying and Establishment of Ground Control and Exhibit "A" Airport Property Inventory Maps	■
The Quotient Group	Stakeholder and Public Involvement Material Development and Graphic Support	■
Martinez Geospatial, Inc.	Aerial Photography and Topographic Mapping	■

NOTE:

DBE – Disadvantaged Business Enterprise

The purpose of the MPU is to comprehensively assess the 20-year needs of the Airport and based on these results, update the Capital Improvement Program (CIP) and Airport Layout Plan's (ALP) set. This project will also include the development of mapping and surveying in compliance with the FAA's prescribed Airports Geographic Information Systems (AGIS) requirements. The MPU will be conducted in accordance with FAA Advisory Circular (AC) 150/5300-13B, *Airport Design*, FAA AC 150/5070-6B, *Airport Master Plans*, and the *FDOT Guidebook for Airport Master Planning*.

The last comprehensive master plan for TIX was initiated in 2002 and completed in 2005. Since the drafting of the 2005 MPU, the TCAA has completed numerous improvement projects, the state of the general aviation (GA) industry has evolved, and the FAA's design and other regulatory guidance have been updated. The MPU is needed to plan for an appropriate mix of land uses, facilities, and infrastructure to support forecast aviation and non-aviation needs.

This Scope of Services includes background information describing the context in which the master planning effort will be accomplished, along with areas of special emphasis. To the extent practical, these efforts will leverage the findings and recommendations from recent and ongoing studies, analyses, project data, and capital improvement initiatives. The tasks and subtasks proposed to prepare the MPU, and related efforts are described in the remainder of this Scope of Services proposal.

Summary of Project Costs and Meetings

- A summary of the fee for each task and the total MPU cost is contained in **Table 2**.
- Details of each firm's respective proposals are included in **Appendices A** through **E**.
- **Table 3** lists the meetings proposed as part of this MPU, along with anticipated duration, number of persons from the Ricondo Team that would participate, and supporting meeting materials to be prepared.

TASK 1A. INVENTORY OF EXISTING CONDITIONS

The Ricondo Team will collect, assemble, and organize existing Airport information needed to develop an inventory of existing conditions from a variety of sources including, but not limited to:

- A site visit and interview with Airport staff conducted as part of this task (see Task 1A.9, for budgeting purposes, it is anticipated the site visit will include up to three (3) members of the Ricondo Team and last up to eight (8) hours.
- 2005 Airport Master Plan and other planning studies provided by TCAA
- Aerial mapping completed in Task 2
- As-built/record drawings provided by TCAA for recently completed capital projects
- FAA and FDOT databases

The primary subtasks associated with the Inventory of Existing Conditions are outlined in the following subsections.

1A.1 BACKGROUND, AIRPORT HISTORY, AND AERONAUTICAL ROLE

This subtask includes background information pertinent to the MPU, including a summary of the goals and objectives identified as part of Tasks 1C and 1D. The Airport's history, including a summary of major developments, improvements, and key milestones will be presented as a (graphic) timeline. The timeline will utilize readily available historical photographs provided by TCAA staff. TIX's aeronautical role within the federal, state, and local air transportation system will be documented. Specifically, the most recent National Plan of Integrated Airport Systems (NPIAS) will be reviewed, and TIX's existing and future role will be discussed.

1A.2 INVENTORY OF AIRPORT PHYSICAL FACILITIES

1A.2.1 AIRFIELD

The goal of this task is to collect and document data and information regarding the physical characteristics and conditions of existing airfield operating systems (defined herein for purposes of this task as the runway, taxiways, taxilanes, and aircraft aprons) at TIX. This includes data such as geometric dimensions, runway pavement strengths, navigational aids (NAVAIDs), operational restrictions, deviations from FAA design standards, and other pertinent airfield data. Information related to the condition of various facilities will be obtained from existing published FAA/FDOT data, pavement condition index reports, and from other information provided by TCAA staff.

1A.2.2 FIXED BASE OPERATOR/GENERAL AVIATION FACILITIES

Structures devoted to the use of general aviation activities, including fixed base and corporate aircraft operators, will be identified and evaluated as to their size, use (maintenance hangar, storage hangar, office, etc.), and general condition. Also included in the inventory will be a description of the services provided by each FBO and tenant. General aviation facilities, including vehicular parking areas, aircraft ramp areas, number of tiedowns, and hangars by type (conventional and T-hangar), will be identified and quantified by spatial area or other appropriate measures.

This inventory will be limited to the identification of overall square footage of building/hangar and general aviation apron areas available based on information obtained by the Ricondo Team or provided by TCAA staff, as well as information obtained from previous studies or projects. It is anticipated that any available building condition information collected as part of the annual inventory and inspection process will be provided to the Ricondo Team by TCAA staff.

1A.2.3 SUPPORT FACILITIES

Airport support facilities to be inventoried will include, but not necessarily be limited to fueling, Airport administration and maintenance, Air Traffic Control Tower (ATCT), and Aircraft Rescue and Firefighting (ARFF) facilities. Existing reports, design documents, and other available information will be utilized to inventory the existing airport support facilities. As available, the following information will be summarized and presented in the Inventory of Existing Conditions:

- Facility size and use
- General site conditions
- Airside and/or landside access
- Near term planned improvements anticipated to occur on or before fiscal year 2025

1A.2.4 NON-AERONAUTICAL FACILITIES

This subtask will include an inventory of the non-aeronautical facilities within the boundaries of the Airport. The information related to the type of facility, building area, leasehold boundaries, and function will be inventoried and presented in both narrative and graphic formats. Information will be obtained from TCAA staff, existing leaseholds, and previous planning studies or capital projects. Also discussed in this subtask will be a summary of nearby port and rail facilities, including proximity, access considerations, and an overview of future plans related to potential connectivity to the Airport. It is anticipated that TCAA staff would provide leasehold boundaries in AutoCAD format and any relevant studies related to future connectivity of port and rail facilities. The re-creation of layouts of existing or proposed facilities and infrastructure in AutoCAD is not included in this scope of services.

1A.2.5 FACILITIES CONDITION AND AGE ESTIMATION

A facilities condition and age estimation summary will be included in the Inventory of Existing Conditions. The data will be presented in tabular format (and corresponding exhibit) and include the estimated age of on-Airport facilities, existing tenants and corresponding lease term, and overall condition of the facility (e.g., needs light/routine maintenance, requires renovation, reached its useful life and utility). The information will be obtained from the site visit (Task 1A.9) and from other data, input, and previous studies provided by TCAA staff, including any available building condition information collected as part of the annual inventory and inspection process by TCAA or others.

1A.3 AIRSPACE DATA

This subtask will include a discussion on the classification of airspace above TIX and up to five nautical miles from each runway end. Additionally, an overview of the current approach and departure procedures, published noise abatement procedures, and a generalized summary of traffic patterns will be provided.

1A.4 METEOROLOGICAL CONDITIONS

The Ricondo Team will assemble and analyze 10-years of historical wind and weather data obtained from the National Oceanic and Atmospheric Administration (NOAA). Ceiling, visibility, wind speed, and direction will be analyzed to develop a wind rose, assess existing wind coverage, and determine the percentage of observations in visual and instrument meteorological conditions. This information will be obtained for use in the airfield demand/capacity analysis, as well as for the update of the ALP drawing set.

1A.5 LAND USE

1A.5.1 ON-AIRPORT

As part of this subtask, the Ricondo Team will identify and quantify the existing on-Airport land uses by airfield, aviation development, non-aeronautical development, and vacant/undeveloped areas. The information will be obtained from existing TCAA documents and through discussions with Airport staff. Information will be presented tabularly and illustrated on an exhibit. As available and provided electronically by TCAA staff, existing leasehold boundaries will also be depicted. The budget includes the re-creation of up to six (6) leasehold boundaries in AutoCAD from legal descriptions of the boundaries, assumed to be provided by the TCAA.

1A.5.2 OFF-AIRPORT

Existing land use mapping, aerial photography, Comprehensive Plans developed by the City of Titusville and Brevard County, and other documentation pertaining to current and future land use in the vicinity of the Airport (up to one mile from the Airport boundary) will be reviewed. As part of this subtask, the proximity of households and population up to 1.5 miles of each existing runway end will be estimated.

1A.6 UTILITIES

This subtask will document the locations of significant utilities (water, sewer, and electricity) surrounding the Airport. Significant utilities will include the nearest water connection and size; the nearest sewer and size; and the nearest electric substation and size. Sources referenced will include but are not limited to existing as-built drawings and/or related data, City of Titusville Utility Location Maps, City of Titusville Utility Engineering Department, and the Brevard County Utility Services Department. Florida Power and Light will serve as an additional resource for determining electrical services in the area surrounding the Airport. An exhibit will be developed identifying the Airport utility lines, connection locations, and line sizing for use in planning required utility connections for future facility expansion projects.

The stormwater management systems/facilities will be assessed/inspected to document the functionality, condition, and potential deficiencies. Airport stormwater facilities will be depicted either on the utility exhibit or a separate stormwater exhibit. This task does not include analysis and reporting to the level of stormwater permitting.

1A.7 SOCIOECONOMIC DATA

This subtask will consist of the definition of the Airport's catchment area and the assembly of historical and forecast socioeconomic data (employment, population, personal income, gross regional product) for the region and the nation. This will include data from the U.S. Census Bureau, regional economic development organizations, regional and national socio-economic data sourced through Woods & Poole Economics, Inc., and other relevant sources.

1A.8 ENVIRONMENTAL CONDITIONS

The Ricondo Team will assemble existing datasets and documentation of environmental resources at TIX and the surrounding environment and provide an initial assessment of their influence on airport development. The Ricondo Team will identify the existing conditions of environmental resource categories defined in FAA Order 1050.1F, *Environmental Impacts: Policies and Procedures* Desk Reference that are relevant to future development at TIX. Based on known conditions, the following categories would be included in the Inventory:

- Air Quality – general discussion of status of attainment relative to the National Ambient Air Quality Standards for the airport region and considerations for future development.
- Biological Resources – general discussion of biological resources, including federal endangered and threatened species, potentially present on airport property, as identified in previous National Environmental Policy Act (NEPA) documents, the Wildlife Hazard Management Plans, etc.
- Coastal Resources – general discussion of coastal resources and policies relevant to airport development.
- Section 4(f) Resources – general review for the presence of Section 4(f) resources adjacent to airport property, through collection of GIS datasets available online and previous airport NEPA documents.
- Hazardous Materials – general review of previously identified hazardous materials issues at the airport, such as issues documented in previous NEPA documents.
- Historical, Archaeological, Architectural, and Cultural Resources – general review of cultural resources from available airport resources, such as previous NEPA documents.
- Natural Resources and Energy Supply – general discussion of natural resource and energy use, based on information tracked and reported for the airport, if available.
- Noise and Noise-Compatible Land Use – provide a general characterization of aircraft noise based on the most recent airport noise contours (if available).
- Socioeconomics and Environmental Justice: review socioeconomic characteristics of surrounding communities to identify the potential presence of minority or environmental justice populations.
- Water Resources (wetland, floodplains, surface waters, groundwater): collect water resource mapping from the Airport Authority and supplement with mapping available through online resources such as the National Wetland Inventory, Federal Emergency Management Agency. No wetland delineation field surveys are included as part of this scope of services.

Available data from previous studies and information accessible from agencies and other public sources will be relied upon as the basis for this effort. It is assumed that the TCAA will share previous NEPA documents for the airport that will summarize relevant issues, and provide resource mapping, as available. Resources will be mapped on an overview of environmental considerations exhibit for inclusion in the Inventory of Existing Conditions section and use in evaluating master plan alternatives, if applicable. Federal, state, and local permits required for

environmental resources will be identified and briefly summarized. Brief discussions of the existing conditions for each resource category will also be provided in the Inventory of Existing Conditions section.

NOTE: The fee estimate is based on preparation of the existing environmental conditions section in the Inventory chapter concurrent with the same tasks for the COI and X21 MPUs. The concurrent approach enables efficiency because the Ricondo Team would collect and analyze data for all three airports once from each agency concurrently, rather than conducting three separate efforts.

1A.9 TENANT SURVEYS

A tenant interview questionnaire/survey will be prepared and distributed to existing Airport tenants electronically (via email / or web-based survey). The purpose of the survey is to obtain feedback and input on tenants' existing operations and activities (including typical aircraft stage length), tenant recommended improvements, potential changes in tenants' business models such as aircraft fleet changes, and tenants' recommendations of items to be addressed in the MPU. The survey will be reviewed and approved by TCAA staff prior to distribution. The survey will be available for tenant input for up to thirty days. At the end of the survey response period, the Ricondo Team will compile the responses tabularly and summarize key or recurring themes with up to three PowerPoint slides.

1A.10 PREPARE DRAFT WORKING PAPER

A draft Inventory of Existing Conditions working paper summarizing the findings of each of the preceding tasks will be prepared and provided to Airport staff for their review. The Ricondo Team will prepare exhibits (as applicable) to clarify and summarize the various items addressed in the inventory section. The draft working paper will be delivered to the Airport and other stakeholders (at the Airport staff's request) in Adobe Portable Document Format (PDF).

It is anticipated that Airport staff will review the draft working paper and provide comments to the Ricondo Team. Comments on the draft working paper will be addressed and responded to as appropriate and included in the final master plan report. A comment tracker, used throughout the MPU, will be developed to manage comments and responses. No supplemental draft will be issued.

1A.11 MEETINGS

It is anticipated that one (1) site visit will be conducted as part of the Inventory of Existing Conditions. The site visit will occur on the same day as the project kickoff meeting (Task 13.3.1). The purpose of the site visit is for the Ricondo Team to collect pertinent information, discuss the condition of the various facilities with TCAA staff, and photograph key facilities for inclusion into the working paper. The site visit will be attended by up to two (2) members of the Ricondo Team and is anticipated to last up to eight (8) hours.

Exclusions

- Architectural/engineering assessments of facility conditions
- Surveying of leaseholds and utilities
- Aircraft operations and vehicular traffic counts
- Re-creation of existing conditions exhibits or drawings in AutoCAD
- Agency outreach beyond the collection of readily available public data
- Collecting the Environmental Resource Permit (ERP) of each specific stormwater system
- Photographs, estimated capacities, and recommendations of stormwater system components

TASK 1B. EMERGING TRENDS AND TECHNOLOGIES

1B.1 EMERGING TRENDS AND TECHNOLOGIES

This task includes research and review of data related to emerging trends and technology systems that may have changed since completion of the 2005 MPU and those that may continue to change in the future. Representative topics that may influence the GA sector in the Space Coast region and overall industry to be discussed include the following:

- Advanced air mobility (AAM)
- GA fleet demographics (including electric aircraft) and industry trends
- Airspace considerations including NextGen and other technologies (including remote towers)
- Fuel cost and alternative fuel trends
- Airport development and funding trends
- Maintenance, repair, and overhaul trends

1B.2 REVIEW OF GENERAL AVIATION INDUSTRY TRENDS AND FACTORS AFFECTING DEMAND

This subtask will comprise a review of national general aviation trends based on the FAA Aerospace Forecasts FY 2021-2041, the General Aviation Statistical Databook & Industry Outlook from the General Aviation Manufacturers Association (GAMA), and the general aviation trends in the Central Florida and East Central Florida regions. The data collected under this subtask will help assess local and nationwide short- and long-term trends, including projections of active general aviation aircraft by type. In turn, these projections will be evaluated to assess whether these trends are likely to influence future general aviation aircraft fleet mix projections at the Airport.

This information will be summarized and documented as part of the Aviation Activity Forecasts (Task 3A). For budgeting purposes, the fee for the research, data review, and documentation will be part of this task.

MEETINGS

There are no meetings anticipated as part of this task.

Exclusions

- Online and in-person surveys
- Benchmarking of other airports

NOTE: The research and summary information developed as part of this task will also be used in the Merritt Island Airport (COI) and Arthur Dunn Airpark (X21) MPUs. The fee for this task has been spread evenly among the three MPUs.

TASK 1C. VISIONING SESSION WITH TCAA BOARD MEMBERS

1C.1 VISIONING SESSION

This task includes the Ricondo Team facilitating one (1) visioning session with TCAA board members to develop a long range, forward looking, and unconstrained visualization of each airport's evolution over a long-term period to guide the identification of goals and objectives for each airport and help identify or redefine (if applicable) TCAA's long range strategic framework. This task would also serve to establish key considerations by which alternatives would be developed, evaluated, and refined in subsequent sections of the master plan.

For budgeting purposes, the visioning session is anticipated to last up to three (3) hours and be conducted by up to three (3) members of the Ricondo Team. A PowerPoint presentation will be developed to guide the discussion.

The results of the visioning sessions will be summarized in a PowerPoint presentation that highlights key themes identified by the stakeholders, as well as goals and objectives developed to guide the master planning process. This summary presentation will be provided to TCAA staff for review and comment and presented to the TCAA Board Members as part of Task 1D.

Exclusions

- Visioning sessions with tenants and other stakeholders

NOTE: The visioning session with the TCAA Board Members will also include discussions related to COI and X21. For budgeting purposes, the fee for this effort has been spread across the three MPUs.

TASK 1D. STRENGTHS AND OPPORTUNITIES ASSESSMENT

1D.1 STRENGTHS AND OPPORTUNITIES ASSESSMENT

This task will leverage information collected as part of Task 1C and develop a strengths and opportunities assessment for the airport that focuses on the Airport's unique strengths and potential opportunities for business expansion or diversification to help guide the strategic development and enhance the overall value of the airport's assets. The Ricondo Team will utilize the results of this analysis to identify key drivers affecting activity levels, types of services and activities accommodated, and availability of developable space and facilities. The Airport's existing role, as well as the potential opportunities for an expanded or evolving role, within the TCAA system, would also be considered in close coordination with the TCAA as part of this task. The previously completed strengths, weaknesses, opportunities, and threat analysis developed as part of the Airport's existing Strategic Business Plan will be reviewed as part of this subtask. The strengths and opportunities assessment will be summarized and documented in a PowerPoint presentation.

1D.2 MEETINGS

This task includes up to two (2) meetings to present the findings and a summary of the strengths and opportunities assessment and visioning session (Task 1C). One meeting will be held with TCAA staff and one meeting with the TCAA Board Members. For budgeting purposes, it is anticipated that each meeting will last up to two (2) hours and be attended by up to two (2) members of the Ricondo Team. The Ricondo Team will prepare and distribute a summary of action items for the meeting with TCAA staff. Meeting minutes for the TCAA Board Member discussion will be prepared by TCAA staff (as part of the regularly scheduled Board Meeting).

Exclusions

- Development of a separate, stand-alone Strategic Plan Summary Report or White Paper
- Benchmarking of other airports or systems of airports

NOTE: This task includes a discussion of the visioning session (Task 1C) and strengths and opportunities assessment for TIX, COI, and X21. For budgeting, purposes the fee for this effort has been spread among the MPUs.

TASK 1E. STAKEHOLDER AND PUBLIC INVOLVEMENT

The purpose of the Stakeholder and Public Involvement Program is to engage TCAA, airport stakeholders, and tenants in the MPU process. The program is designed to be inclusive and create an environment that promotes meaningful dialogue and opportunities to actively participate in the MPU process. The subsequent sections detail the efforts associated with conducting the Stakeholder and Public Involvement Program. The presentation materials created and/or collected as part of this task will be included in an appendix of MPU.

1E.1 TECHNICAL ADVISORY PANEL

A Technical Advisory Panel (TAP), consisting of up to twenty individuals, will be formed to provide input and insight on existing and planned facilities, infrastructure, and aircraft operations and other activity information. The TAP will be tasked with reviewing and analyzing MPU's technical analyses, interacting with the planning team members during the meetings, and making recommendations to the planning team. Panel members could include but are not limited to: TCAA board members and staff, major airport tenants (FBOs, flight school, hangar tenants, etc.), ATC staff, FAA, FDOT, ARFF staff, and representatives from nearby counties and municipalities. As suggested by the title, the TAP is advisory in nature and does not have official decision-making power.

1E.1.1 PREPARE BRIEFING MATERIALS

This subtask includes the preparation of briefing materials for three (3) TAP briefings. Briefing materials prepared for the TAP will include the development of discussion materials highlighting key takeaways from the draft MPU material, the methodologies involved in the development of the material, and MPU status updates. The Ricondo Team will develop briefing materials in the form of PowerPoint presentations. This subtask also includes the preparation and distribution of meeting minutes.

1E.1.2 ATTEND AND MODERATE TECHNICAL ADVISORY PANEL BRIEFINGS

The TAP briefings will be attended by up to two (2) members of the Ricondo Team. It is anticipated these meetings will take place in the TCAA conference room and last up to two (2) hours. The Ricondo Team will present briefing material discussed in the previous subsection, present preliminary MPU material, and obtain consensus on key decisions. An email invitation will be distributed to each committee member at least two weeks prior to each meeting.

1E.2 CITIZENS ADVISORY PANEL

A Citizens Advisory Panel (CAP) will be developed to serve as a sounding board and information exchange group for the general public and other stakeholders. The CAP will review the planning team's plans and proposals, interact with the planning team members during meetings, and provides recommendations to the planning team, and TCAA staff. Panel members, to be identified by the TCAA, could include, but are not limited to citizens, representatives from nearby homeowners' associations, public officials, and business leaders (economic development groups, chambers of commerce, etc.). The CAP will weigh the recommendations against community goals, values, and needs. The CAP is advisory in nature would have no decision-making power of their own.

1E.2.1 PREPARE BRIEFING MATERIALS

This subtask includes the preparation of briefing materials for the three (3) CAP briefings. Briefing material prepared for the CAP will include discussion materials highlighting key takeaways from the draft MPU material, the methodologies involved in the development of the material, and MPU status updates. The Ricondo Team will develop briefing materials in the form of PowerPoint presentations. This subtask also includes the preparation and distribution of meeting minutes.

1E.2.2 ATTEND AND MODERATE CITIZENS ADVISORY PANEL BRIEFINGS

The CAP briefings will be attended by up to two (2) members of the Ricondo Team. It is anticipated these meetings will take place in the TCAA conference room and last up to two (2) hours. The Ricondo team will present briefing material discussed in the previous subsection, present preliminary MPU material, and obtain consensus on key decisions. An email invitation will be distributed to each committee member at least two weeks prior to each meeting.

NOTE: *For budgeting purposes, it is anticipated that the TAP and CAP meetings will occur on the same day.*

1E.3 TITUSVILLE-COCOA AIRPORT AUTHORITY WORKSHOPS

The TCAA's strategic initiatives and vision for the Airport will be used to guide and inform the MPU process. A critical element of the planning process is to obtain feedback and input from the TCAA to ensure the Recommended Airport Improvement Plan aligns with TCAA's strategic initiatives and vision.

1E.3.1 PREPARE WORKSHOP MATERIALS

This subtask will include two (2) workshops that provide an opportunity for the TCAA to review and comment on the MPU's technical analysis, alternatives, Recommended Airport Improvement Plan, and CIP. The Ricondo Team will develop workshop materials that will guide discussion and feedback. Workshop materials may be in the form of display boards and/or PowerPoint presentations. This subtask also includes the preparation and distribution of meeting minutes.

1E.3.2 CONDUCT WORKSHOPS

Two (2) workshops are budgeted to facilitate coordination, consistency, obtain direction, and make key decisions prior to the development of MPU draft chapters. For budgeting purposes, it has been assumed that up to two (2) members of the Ricondo Team would participate in each of the two (2) workshops. Each workshop is anticipated to last approximately two (2) hours.

NOTE: For budgeting purposes, it is anticipated that the TCAA workshops will be held on the same day as the workshops for the COI and X21 master plan. The fee for subtask 1E.3.2 will be spread evenly among the three MPUs.

1E.4 TITUSVILLE-COCOA AIRPORT AUTHORITY BRIEFINGS

1E.4.1 PREPARE BRIEFING MATERIALS

The board members of the TCAA will be briefed on the progress of the MPU during key milestones, such as near the end of the development of the Aviation Activity Forecasts (Task 3A) and the midpoint of the Financial Plan (Task 8). Briefing materials prepared for the TCAA briefings will include the development of discussion materials highlighting key takeaways from the draft MPU material, the methodologies involved in the development of the draft and preliminary material, and MPU status updates. The Ricondo Team will develop briefing materials in the form of PowerPoint presentations.

1E.4.2 ATTEND BOARD MEETINGS AND CONDUCT BRIEFINGS

This subtask will include the Ricondo Team's attendance at up to two (2) regularly scheduled board meetings to present the briefing materials discussed in the previous subsection, present preliminary and draft MPU materials, and obtain feedback and comments from the TCAA. The TCAA Board Meetings are open to the public and will provide an opportunity for the TCAA and the Ricondo Team to receive public comments and feedback on the MPU.

For budgeting purposes, it has been assumed that up to two (2) members of the Ricondo Team would participate in each of the two (2) briefings. Each board meeting is anticipated to last approximately two (2) hours.

NOTE: For budgeting purposes, it is anticipated that the TCAA briefings will be held on the same day as the briefings for the COI and X21 master plan. The fee for subtask 1E.4.2 will be spread evenly among the three MPUs.

1E.5 PUBLIC WORKSHOPS

1E.5.1 PREPARE WORKSHOP MATERIALS

Two (2) public workshops, in an open house format, will be conducted to brief residents and interested stakeholders about the project and to receive public comments. The workshops are tentatively scheduled to occur following the completion of the Demand/Capacity Analysis and Facility Requirements and prior to the Final MPU submittal. The Ricondo Team will prepare briefing materials for the public workshops and will have appropriate personnel in attendance to respond to questions and comments from the public. The Ricondo Team will prepare the meeting notice for mailing to the public and the meeting advertisement for publication. The Ricondo Team will prepare and collect comment forms and will review and summarize the comments.

1E.5.2 ATTEND PUBLIC WORKSHOPS

Up to three (3) members of the Ricondo Team will attend each of these meetings and participate in the role desired and requested by TCAA staff. For budgeting purposes, it is assumed that each workshop will last up to three (3) hours. This task will also include for each workshop a meeting summary including copies of sign-in sheets, comment cards collected, and a summary of action items/consensus items.

Exclusions

- Development of videos and multimedia presentations
- Individual meetings and agency outreach

TASK 2. AERIAL SURVEYING AND MAPPING

The Ricondo Team will provide spatial data collection, photogrammetry, and mapping services in support of an ALP. This proposal also includes tasks required to comply with FAA Airports survey program standards. All survey and photogrammetry work will be accomplished in accordance with the following ACs:

- AC 150/5300-16B: General Guidance and Specifications for Aeronautical Surveys: Establishment of Geodetic Control and Submission to the National Geodetic Survey
- AC 150/5300-17C: Standards for Using Remote Sensing Technologies in Airport Surveys
- AC 150/5300-18B: General Guidance and Specifications for Submission of Aeronautical Surveys to NGS: Field Data Collection and Geographic Information System (GIS) Standards

The objective for this task is to collect and submit safety critical data for the Airport in a format that is recognized by FAA. Base-mapping (planimetric & topographic data) collected in support of the ALP update will be formatted and submitted to the Airport Data and Information Portal (ADIP). This task will also include an Airport Airspace Analysis for the existing runways, a NAVAID inventory and survey, a runway ends/thresholds and profiles survey, and the collection (through remote sensing) of planimetric & topographic data. The Ricondo Team will fulfill the data collection, formatting, delivery, and process requirements of the FAA AGIS program.

In general, the Ricondo Team's approach to fulfilling the GIS requirements will consist in completing the tasks outlined in Table 2-1 (Survey Requirements Matrix) of FAA AC 150/5300-18B, Column "Airport Layout Plan." The Ricondo Team will be responsible for coordinating and submitting AGIS deliverables to FAA.

2.1 PROJECT PLANNING / FAA AIRPORTS-GIS COORDINATION / FIELD-SURVEY CONSULTATION

This task includes the development, submission, and approval of the "Statement of Work" for the project through the FAA Airports District Office (ADO) and FAA AGIS staff. The Ricondo Team will also develop, submit, and obtain the approval of the "Imagery/Remote Sensing Plan" and the "Survey & Quality Control Plan" required by the FAA.

2.2 IMAGERY ACQUISITION (FLIGHT MISSION)

New color aerial imagery will be captured utilizing a digital photogrammetric camera for all areas defined in the Project Area Definition section of the proposal found within Appendix D. The aerial imagery acquisition flight mission will be executed in accordance with all guidelines and specifications within FAA AC 150/5300-17C. The aerial imagery acquisition flight mission will consist of one "block" of imagery, collected to the following specifications:

- Imagery Resolution: 10 cm
- Imagery Purpose/Use: This imagery will be utilized for all photogrammetric data extraction, including airfield planimetric/topographic mapping and AGIS/Part 77/TSS Airport Airspace Analysis. 0.50' GSD orthophotos will be generated from this imagery.

Upon completion of the flight mission, the imagery will be reviewed through in-house quality assurance procedures for photogrammetric acceptability and compliance with AC 150/5300-17C requirements.

NOTE: The fee estimate for imagery acquisition assumes that TIX, COI, and X21 will be flown on same flight mission.

2.3 AERO-TRIANGULATION

The digital aerial imagery will be imported onto a digital photogrammetric workstation where it will be oriented with field-surveyed ground control. This procedure will establish both horizontal and vertical control for orienting individual photogrammetric models.

2.4 ORTHOPHOTO PRODUCTION

Digital orthophotos will be produced to meet the project's needs and to comply with the requirements of the FAA AGIS program and AC 150/5300-17C. One set of ortho imagery will be produced covering Area B illustrated in Appendix D and meeting a Ground Sampling Distance (GSD) resolution of 0.50 feet.

2.5 PLANIMETRIC/TOPOGRAPHIC MAPPING

Utilizing the aero-triangulated digital imagery, photographic stereo pairs will be oriented and compiled on digital photogrammetric workstations within Area A illustrated in Appendix D. The mapping data will be compiled meeting the following specifications:

- Planimetric data scale – 1 inch = 200 feet
- Topographic data scale – 2-foot contour interval

2.6 AIRSPACE ANALYSIS/OBSTRUCTION SURVEY

An airport airspace analysis and obstruction survey will be completed for all runway ends. Obstacle data collection (and subsequent submission) will be accomplished in accordance with relevant sections of AC 150/5300-18B, Section 2.7.1 and the FAA's Airport Airspace Analysis Checklist. This effort includes a Part 77 surface and obstacle clearance surface (OCS) survey that will be performed by analyzing the digital 3D stereo imagery. Natural and manmade objects penetrating the surfaces including, but not limited to buildings, utility poles, antennas, towers, and prominent objects will be collected (small objects, such as mailboxes, posts, and utility boxes will be ignored) and identified. For vegetation, singular trees/shrubs will be collected to the extent possible/feasible. In large areas of dense vegetation, a bounding polygon will be drawn to show the extents of the dense area. A 100-foot grid will be applied to the defined limit, and the highest vegetation point within each grid-sector will be collected.

2.7 MAPPING EDIT AND GIS FORMATTING/FAA COMPLIANCE

In addition to generating mapping data in AutoCAD format, all collected data will be edited and formatted in the appropriate FAA AGIS format. In terms of GIS attributes, the Ricondo Team will be responsible for populating all geospatial-related and/or critical attributes required for upload. The final AGIS file created by the Ricondo Team will include both Safety-Critical and Non-Safety-Critical data including:

- Safety-Critical
 - Airport Airspace Analysis Data (Obstructions)
 - Runway Survey Data

- NAVAID Survey Data
- Non-Safety-Critical
 - Planimetric Data
 - Topographic Data

Final GIS data will meet the following specifications:

- GIS Data Model - FAA Airports-GIS (AC 150/5300-18B, Chapter 5)
- GIS Delivery Format - ArcGIS Shapefile

2.8 FIELD-SURVEY SERVICES

2.8.1 ESTABLISH GEODETIC CONTROL / VALIDATE EXISTING PACS / SACS

There is currently one Primary Airport Control Station (PACS) monument and two Secondary Airport Control Stations (SACS) monuments published in the National Geodetic Survey (NGS) database for the Airport. Surveyors will validate/utilize these monuments to serve as the project tie to the National Spatial Reference System (NSRS). If the existing PACS/SACS monuments are determined to be damaged or the validation is unsuccessful, the surveyors will establish temporary geodetic control points, as required. Geodetic data will be tied to the NSRS using the latest published adjustment (2011). In addition to the PACS and SACS, this subtask will include the surveying of up to five (5) additional survey monuments. The approximate location of the survey monuments will be provided by TCAA staff.

Photo-identifiable features will be selected and surveyed for use as imagery ground control. Imagery Control will be surveyed (properly tied to NSRS) and documented in accordance with AC 150/5300-17C and FAA Airports-GIS requirements. Ground control data and documentation will be submitted to FAA Airports-GIS along with the Aerial Photography Acquisition Report. It is anticipated that approximately 28 imagery control points will be required, along with 5 independent Online Positioning User System (OPUS) checkpoints.

2.8.2 RUNWAY SURVEYS

Survey tasks will include a survey of runway-endpoints, displaced-thresholds, and runway-profiles. For each runway-endpoint and displaced-threshold, a monument will be set (or recovered), surveyed, and documented in accordance with AC-150/5300-18B. Runway-centerline-profiles will be surveyed at a 25-foot interval utilizing mobile-RTK methodology. Multiple passes in opposite directions will be accomplished of the entire runway length for quality assurance purposes. Final profile data will be reduced to 50-foot stations. Runway survey data will be utilized for the Airport Airspace Analysis/Obstruction Surveys task. Runway survey data will be properly formatted by the Ricondo Team and reported in the FAA Airports-GIS deliverable

2.8.3 NAVAID SURVEYS

Surveyors will accomplish field-survey of NAVAIDs associated with TIX. Each NAVAID will be surveyed and documented in accordance with AC-150/5300-18B. NAVAID survey data will be formatted by the Ricondo Team and reported in the FAA Airports-GIS deliverable.

Exclusions

- Development of 3D models
- Acquisition of light detection or ranging (LIDAR) data

TASK 3A. AVIATION ACTIVITY FORECASTS

The purpose of this task is to develop aviation activity forecasts for the Airport, taking into consideration socioeconomic factors, local and national general aviation trends, and demand characteristics at the Airport. New activity forecasts will be derived based on recent historical demand patterns, trends experienced at the Airport, and the potential range of changes in aviation activity at the Airport that could occur over the 20-year planning horizon.

3A.1 ANALYSIS OF HISTORICAL ACTIVITY PATTERNS

This subtask will include the collection and analysis of historical activity at the Airport. Data on historical aircraft operations and based aircraft for a ten-year period commencing in fiscal year (FY) 2011 and ending in FY 2021 will be assembled from various sources, including airport activity records, the Airport's Virtower system, and FAA databases. This data will be used to measure and analyze historical activity patterns. The analysis will serve to identify the drivers of historical activity and determine which of those drivers may be indicative of future activity at the Airport. Virtual meeting discussions with the Airport's FBOs will also be conducted to identify any additional emerging trends.

3A.2 DEVELOP AVIATION ACTIVITY FORECASTS

The forecasts will be prepared using FAA-accepted methodologies (econometric modeling, market share, and trend analyses) for the period from FY 2023 through FY 2043. These forecasts will be compared against other forecasts recently prepared for TIX, such as the FAA's 2021 Terminal Area Forecasts (TAF) published in March 2022 (or the most current TAF available at the time the forecasts are prepared) and the Florida Aviation System 2035 Update. Activity projections will be provided for each year of the projection period and will include individual projections of the following:

- Annual General Aviation Operations (Local vs. Itinerant)
- Annual Military Operations (Local vs. Itinerant)
- Annual Instrument Operations
- Total Annual Aircraft Operations
- Annual Operational Fleet Mix by Aircraft Type (Piston, Turboprop, Jets, Others)
- Annual Operational Fleet Mix by Aircraft Approach Category (AAC) and Airplane Design Group (ADG)
- Based Aircraft Fleet Mix (Piston, Turboprop, Jet, Others)

As part of this task, the Ricondo Team will also prepare supplemental documentation comparing the FAA TAF and the TIX MPU forecasts.

3A.3 IDENTIFY CRITICAL AIRCRAFT

This task includes the background research and data collection necessary to identify the "critical aircraft" or "critical design aircraft" for the base year and throughout the planning period. The critical aircraft will be used to evaluate the FAA design criteria detailed in Task 4, develop subsequent airfield alternatives, and, as necessary, reevaluate existing operational restrictions. Information will be collected from the Airport's Virtower software and the FAA's Traffic Flow Management System Counts database.

The critical aircraft will be determined by quantifying the most demanding aircraft with 500 or more annual itinerant operations that is currently using the Airport or could reasonably be expected to use the Airport during the planning period. The identification of the critical aircraft will provide justification for the identification of the Airport Reference Code (ARC), which is necessary for analysis in subsequent sections of MPU and for inclusion on the ALP.

3A.4 DELIVERABLES

3A.4.1 PREPARE DRAFT WORKING PAPER

A draft Aviation Activity Forecasts working paper summarizing the findings of each of the preceding tasks will be prepared and provided to Airport staff for their review. The Ricondo Team will prepare exhibits (as applicable) to clarify and summarize the various items addressed in the forecasts section. The draft working paper will be delivered to the Airport and other stakeholders (at the Airport staff's request) in Adobe PDF.

It is anticipated that the Airport staff will review the draft working paper and provide comments to the Ricondo Team.

3A.4.2 PREPARE FINAL WORKING PAPER

Upon receipt of comments from TCAA staff on the draft working paper, a final working paper will be prepared and submitted to the FAA Orlando ADO and FDOT for review and comment. FAA and FDOT comments will be addressed, the document will be revised, and the final version will be included in the MPU.

The final working paper will be delivered electronically to the Airport staff and other stakeholders electronically in Adobe PDF. Hard copies of the final working paper will be made available to the FAA and FDOT at their request.

3A.5 MEETINGS

For budgeting purposes, it is anticipated that the Ricondo Team will participate in up to four (4) teleconferences as part of this subtask: two (2) with FBOs operating at the Airport, one (1) with TCAA staff, and one (1) with FAA/FDOT to discuss the results of the forecasts. Each of the four teleconferences are anticipated to last approximately two (2) hours and be attended by up to two (2) members of the Ricondo Team.

This subtask includes the preparation of an Executive Summary PowerPoint presentation outlining the methodologies and assumptions used to develop the forecasts, as well as a summary of the proposed forecast prepared for FAA review and approval. A summary of action items will be developed following the meetings with TCAA and FAA/FDOT.

Exclusions

- Collection of aircraft operations counts
- Creation of a based aircraft list

TASK 3B. MARKET ASSESSMENT/LAND USE PLANNING

3B.1 HIGHEST AND BEST USE ASSESSMENT

An assessment of relevant land uses will be developed to identify preliminary highest-and-best-use opportunities and relative value of aeronautical and non-aeronautical property for revenue potential for the identified parcels at TIX. Using market analytics, the Ricondo Team will identify specific uses within the airport's-controlled land assets based on readily available data and limited benchmarking comprising up to three (3) comparable general aviation airports, identify potential use(s) for designated parcels, and assign priority when multiple land uses are suggested, based on general timelines and the TCAA's feedback, as to when specific sites might be available for economic development and revenue generation. Other information used in the assessment will include developability considerations, such as access to utilities based on information collected during the inventory task, airfield access, landside access and frontage, and nearby land uses and development.

This assessment will also identify opportunities for demolishing (clearing) older facilities or hangars that are in poor physical condition in order to reconfigure the site for more optimal uses or redevelop facilities within the same general area that offer greater value and are more responsive to demand/airport and user needs. This effort will rely on the information collected as part of the Facilities Condition and Age Estimation subtask included as part of the Inventory of Existing Conditions that summarizes the estimated age of the facility, existing tenants and corresponding lease term, and overall condition of the facility (e.g., needs light/routine maintenance, requires renovation, reached its useful life and utility).

This task will culminate in the development of a land use drawing identifying each parcel, its proposed land use, and the general timeline for the proposed land use. This timeline will help inform the timeframe available for amortizing investments by the TCAA or others in each parcel, and/or denote the timeline when the parcel would be available for the proposed use following any recommended facility demolition or site clearing actions.

3B.2 MEETINGS

As a part of this task, two (2) meetings are anticipated between the Ricondo Team and TCAA staff. The first meeting will be to discuss the best approach to segmenting the existing developable space at TIX into parcels and discussing other access considerations and constraints. The second meeting will be to present the proposed land use concepts to the TCAA staff. For budgeting purposes, each meeting is anticipated to last approximately two (2) hours and be attended by one (1) member of the Ricondo Team.

Exclusions

- Assessment of the real estate market and associated market prices.
- Detailed implementation planning in terms of rental rates, absorption schedule, potential tenants, infrastructure development plans, new access roads, and developer requirements.
- Development of financial pro formas for the residual properties to reflect anticipated revenues, costs, cash flow, and the net present value of identified development opportunities.

TASK 4. DEMAND/CAPACITY ANALYSIS AND AIRPORT REQUIREMENTS

The following tasks will be completed in the development of the Demand/Capacity Analysis and Airport Requirements Section of the MPU.

4.1 AIRFIELD

4.1.1 AIRFIELD DEMAND/CAPACITY ASSESSMENT

Using the FAA's methodology for assessing airfield capacity and delay, as described in AC 150/5060-5, *Airport Capacity and Delay*, and other tools such as Airport Cooperative Research Program (ACRP) 79, *Evaluating Airfield Capacity*, an assessment of the current and future level of airfield capacity will be developed. This analysis will consider the airfield configuration, weather data and runway operating configurations, aircraft fleet mix, and current and 20-year forecast operations. The result of the assessment will be expressed in terms of the hourly and annual service volume of the airfield.

4.1.2 RUNWAY LENGTH REQUIREMENTS

Based on the projected aircraft fleet mix anticipated to utilize the Airport over the planning period, an analysis of runway length will be performed for a variety of aircraft likely to utilize the Airport. This analysis will assess a variety of corporate jet and turbine aircraft likely to utilize the Airport, and will consider several operational variables, including ratios of maximum takeoff weight, maximum landing weight, runway conditions, and atmospheric conditions. Required weather data that is necessary for runway lengths will be obtained for TIX from NOAA as mentioned previously in the inventory section. The results of the runway length calculations and requirements, as well as the required dimensional standards, will be incorporated into the Airport requirements portion of the MPU. This analysis will be conducted using the Aircraft Performance Comparator® Tool and will include a comparison of up to eight aircraft samples (in cases where one aircraft type with two different engine models are considered, this condition would represent two samples).

4.1.3 AIRPORT REQUIREMENTS

Using the results of the demand/capacity analysis, as well as relevant information from other tasks and airfield planning criteria, a preliminary listing of airfield requirements necessary to meet projected levels of demand for the 5-, 10-, and 20-year planning horizons will be developed. These airfield requirements will be based upon both accepted airport planning criteria and the forecast of aviation activity for the Airport, as well as the knowledge and expertise of the Ricondo Team, TCAA staff, and TAP members. Airfield characteristics to be assessed include:

- Runway and taxiway geometry, including shoulders
- Necessity for addition/removal/modifications of taxiway connectors
- Pavement condition (based on existing PCI reports)
- Airfield service roads

- Airfield signage
- Lighting and markings
- NAVAIDs

Airfield needs will be identified in terms of linear feet, width, strength, separation, and clearance. The airfield pavement rehabilitation needs based on the pavement condition index (PCI) developed in the FDOT's *Statewide Airfield Pavement Management Program* will be discussed as part of the airfield requirements. Where appropriate, the airfield facilities will be linked to activity demand thresholds or triggers as a means of determining the point at which demand is sufficient to warrant the improvement.

4.2 GENERAL AVIATION AND FIXED BASE OPERATOR FACILITIES

An evaluation of current and future demand and capacity for general aviation facilities will be completed. The analysis will consider facility requirements for:

- Aircraft ramp and parking areas
- T-hangars/Corporate hangars/Box hangars
- Conventional hangar facilities
- FBO/GA terminals
- Aircraft maintenance and repair hangars
- Vehicle parking areas
- Fuel storage facilities

General aviation facility requirements will be identified as needed to meet projected levels of demand expressed in the forecast and based on the demand/capacity analysis for GA facilities. Facility requirements will be expressed in terms of gross area, linear feet, square feet, square yards, or other basic units to determine excess or deficient capacity. This assessment will quantify future development items needed to maintain an adequate capacity, function, and operational flexibility at the Airport. The analysis of general aviation facility requirements will also rely on feedback from the tenants to be obtained during the TAP meetings.

4.3 SUPPORT FACILITIES

Using pertinent FAA regulations, ACs, and information gained from discussions with TCAA staff and users, the Ricondo Team will determine the capacity of existing and establish future needs for the Airport administration, maintenance, ARFF, and ATCT facilities. Security enhancements identified by TCAA staff and/or members of the TAP will also be discussed and presented in this task. Also discussed as part of this subtask, will be a summary of the previously completed *US Customs and Border Protection Feasibility Study* and/or commentary regarding the proposed facility received by the TAP and other stakeholders throughout the planning process.

4.4 LANDSIDE FACILITIES

This task will focus on the on-airport road network and adjacent areas serving the tenant areas. On-airport roadway requirements will be based on future demand, and discussed in terms of number of traffic lanes, access points, and

intersection congestion. Roadway requirements will be developed for immediate airport access roadways providing ingress/egress to the Airport facilities.

4.5 PREPARE DRAFT WORKING PAPER

A draft Demand/Capacity Analysis and Airport Requirements working paper summarizing the findings of each of the preceding tasks will be prepared and provided to Airport staff for their review. The Ricondo Team will prepare exhibits as necessary to clarify and summarize the various items addressed in the requirements section. The draft working paper will be delivered to the Airport and other stakeholders (at the Airport staff's request) in Adobe PDF.

It is anticipated that Airport staff will review the draft working paper and provide comments to the Ricondo Team. Comments on the draft working paper will be addressed and responded to as appropriate and included in the final master plan report. A comment tracker, used throughout the MPU, will be developed to manage comments and responses. No supplemental draft will be issued.

4.6 MEETINGS

For budgeting purposes, it has been assumed that the Ricondo Team would participate in one (1) teleconference with TCAA staff during the duration of this task. The meeting is anticipated to last approximately two (2) hours and be attended by up to two (2) members of the Ricondo Team. This subtask includes the preparation of the PowerPoint presentation to support the meeting and the preparation and distribution of a summary of action items.

Exclusions

- Airfield and airspace simulations
- Landside simulations

TASK 5. FORMULATE ALTERNATIVES

The Ricondo Team will prepare and evaluate alternative airport development concepts to accommodate the range of requirements needed to satisfy forecast demand for the short-, intermediate-, and long-term planning periods. Subtasks to be completed as part of Task 5 are as follows:

5.1 AIRFIELD ALTERNATIVES

Airfield alternatives will be developed to accommodate future airfield capacity needs and address any substandard FAA design conditions discussed in Task 4. Based on the areas of taxiway geometry noncompliance identified in Task 4, the Ricondo Team will develop alternatives for taxiway modifications necessary to comply with the FAA's runway incursion mitigation program and enhancement of situational awareness techniques and standards included in FAA AC 150/5300-13B (e.g., provide indirect taxiway access from apron areas, implement the three-node concept, avoid wide expanses of pavement). Up to three (3) airfield alternative concepts will be developed for discussion with TCAA staff and stakeholders.

5.2 DEVELOP AND EVALUATE GENERAL AVIATION FACILITY CONCEPT PLANS

Based on the GA area facility requirements determined in Task 4, preliminary GA facility concept plans will be formulated. This subtask will include the creation of up to five (5) potential GA facility layouts which will be evaluated based on their efficiency in meeting identified facility requirements, ability to group tenants in the same general areas, ability to accommodate future aircraft types, ease of implementation, optimized land use, and environmental considerations.

5.3 DEVELOP SUPPORT FACILITY CONCEPT PLANS

Based on the support facility requirements determined in Task 4, preliminary support facility concept plans will be developed. The concept plans will be assessed based on the ability to serve forecast demand, expandability, and operational considerations. Up to three (3) support facility alternatives will be prepared as part of this task. The ongoing plans for new ATCT will be incorporated into the support facility concept plans.

5.4 DEVELOP OVERALL AIRPORT CAMPUS CONCEPT PLANS

Using the information collected during the Visioning Session and the Strengths and Opportunities Assessment, concepts plans for optimizing land use and development opportunities at the Airport would be created. Up to three (3) preliminary concept plans will be developed. These airport campus concepts plans will also include options for landside facility improvements. Landside facility improvement concepts will illustrate areas that could be improved to accommodate additional vehicular parking and/or increase vehicular circulation efficiency within the existing and proposed airport footprint. The concept plans will be assessed based on their ability to serve the projected demand, expandability, and operational and circulation considerations.

5.5 EVALUATE ALTERNATIVES/CONCEPTS

The Ricondo Team will conduct an evaluation of the development alternatives and concepts based on criteria developed through a dialogue between the Airport staff and the members of the TAP. These criteria could include, but are not limited to the following:

- ability of the alternative/concept to provide required capacity and/or capability
- potential environmental impacts
- land use optimization
- qualitative assessment of relative costs (using a comparative methodology between each set of alternatives)
- constructability/ease of implementation

Criteria may be weighted to reflect importance in the evaluation process. An evaluation matrix will be prepared to compare the various alternatives in terms of the evaluation criteria.

5.6 DEVELOP ROUGH ORDER OF MAGNITUDE COST ESTIMATES

Rough order of magnitude (ROM) cost estimates will be prepared for the preferred alternative/concept plan. The ROM costs will be used to assist in the phased implementation of the Recommended Airport Improvement Plan, and the evaluation of the ultimate scenario's feasibility. The ROM costs will be developed on a planning/conceptual nature and include design, engineering, administrative, and construction costs. For budgeting purposes, it is assumed this subtask will include the development of ROM cost estimates for up to 25 discrete projects that collectively comprise the Recommended Airport Improvement Plan.

5.7 PREPARE DRAFT WORKING PAPER

A draft Alternatives Analysis working paper summarizing the findings of each of the preceding tasks will be prepared and provided to Airport staff for their review. The Ricondo Team will prepare exhibits as necessary to clarify and summarize the various items addressed in the alternatives section. The draft working paper will be delivered to the Airport and other stakeholders (at the Airport staff's request) in Adobe PDF.

It is anticipated that Airport staff will review the draft working paper and provide comments to the Ricondo Team. Comments on the draft working paper will be addressed and responded to as appropriate and included in the final master plan report. A comment tracker, used throughout the MPU, will be developed to manage comments and responses. No supplemental draft will be issued.

5.8 MEETINGS

For budgeting purposes, it has been assumed that the Ricondo Team would participate in up to two (2) on-site meetings with TCAA staff during the duration of this task. The meeting is anticipated to last approximately two (2) hours and be attended by two (2) members of the Ricondo Team. This subtask also includes the preparation and distribution of a summary of action items.

Exclusions

- 3-D renderings or visual animations
- Airfield simulations
- Spaceport alternatives

TASK 6. ENVIRONMENTAL OVERVIEW

6.1 EVALUATION OF PROPOSED DEVELOPMENT

Prior to the implementation of Recommended Airport Improvement Plan projects, the potential environmental effects of each project must be reviewed in accordance with the National Environmental Policy Act (NEPA). The Environmental Overview, therefore, provides a summary of environmental review considerations related to the set of Recommended Airport Improvement Plan projects identified in the MPU to support the development of an environmental processing strategy for master plan projects. The environmental overview will include:

- An overview of NEPA processing
- Review of the Recommended Airport Improvement Plan projects for potential eligibility for categorical exclusion under NEPA
- Review of environmental considerations for the Recommended Airport Improvement Plan projects based on environmental resources identified in the environmental inventory (Task 1A.7) (e.g., biological resources, Section 4(f) resources, hazardous materials, cultural resources, land use, natural resources and energy supply, noise and compatible land use, and water resources)
- Discussion of NEPA processing strategy and general discussion of applicable environmental permits

The Environmental Overview will not include detailed analyses of environmental impacts (such as preparation of categorical exclusion documentation or environmental assessments for specific projects) or assess whether the impacts would be considered significant under NEPA. Rather, it provides a guide to support future environmental review of MPU projects.

This task will culminate with the development of an Environmental Overview working paper that will be submitted to TCAA staff for review and comments.

6.2 AIRPORT RECYCLING, REUSE, AND WASTE REDUCTION PLAN

The Ricondo Team will prepare an Airport Recycling, Reuse, and Waste Reduction Plan, to be included as an appendix to the MPU.

In support of defining existing conditions, the Ricondo Team would coordinate a conference call with TCAA airport staff to define existing waste management conditions. The existing conditions discussion will document existing waste management practices, that would include, as available: types of waste generated at TCAA controlled facilities, waste infrastructure, waste collection practices and logistics, TCAA waste collection responsibilities, waste management contracts, recycling and landfill costs, and recycling feasibility. The Ricondo Team will prepare a data collection list and share it with TCAA staff in advance of the conference call.

This appendix will include a more detailed discussion of the waste baselining, goal statement development, and initiatives identification elements specific to the topic of waste, to meet FAA guidance for Airport Recycling, Reuse, and Waste Reduction Plans.¹

This task will focus on the recycling, reuse, and reduction of waste that can be legally disposed of in a landfill or equivalent state-permitted facility, including municipal solid waste (everyday waste items), construction and demolition (C&D) debris, and compostable waste (food and green waste). Other types of waste, such as hazardous waste, universal waste, industrial waste, and deplaned international waste are disposed of and recycled in accordance with federal, state, and local laws, as such, they are **not** subject to FAA's airport recycling, reuse, and waste reduction plan guidance nor are they included in this scope of services.

NOTE: The fee estimate is based on concurrent waste planning for the COI and X21 MPUs, and the assumption that the TCAA manages limited facilities (non-passenger facilities). The TCAA-managed facilities do not general significant municipal solid waste streams, so a high-level review will be completed for all three airports simultaneously.

6.3 PREPARE DRAFT WORKING PAPER

A draft Environmental Overview working paper summarizing the findings of each of the preceding tasks will be prepared and provided to Airport staff for their review. The Ricondo Team will prepare exhibits (as applicable) to clarify and summarize the various items addressed in the environmental section along with an Appendix containing the Airport Recycling, Reuse, and Waste Reduction Plan. The draft working paper will be delivered to the Airport and other stakeholders (at the Airport staff's request) in Adobe PDF.

It is anticipated that Airport staff will review the draft working paper and provide comments to the Ricondo Team. Comments on the draft working paper will be addressed and responded to as appropriate and included in the final master plan report. A comment tracker, used throughout the MPU, will be developed to manage comments and responses. No supplemental draft will be issued.

6.4 MEETINGS

For budgeting purposes, it has been assumed that the Ricondo Team would participate in one (1) teleconference with TCAA staff during the duration of this task. The meeting is anticipated to last approximately two (2) hours and be attended by up to two (2) members of the Ricondo Team. This subtask includes the preparation of the PowerPoint presentation to support the meeting and the preparation and distribution of a summary of action items.

Exclusions

- Additional presentations, workshops, etc., to further vet or gain TCAA approval of draft goal statements and initiatives beyond two rounds identified in this scope.
- Sustainability Management Plan

¹ US Department of Transportation, Federal Aviation Administration, memorandum to Regional Airport Division Managers, "ACTION: Guidance on Airport Recycling, Reuse, and Waste Reduction Plans," September 30, 2014.

TASK 7. CAPITAL IMPROVEMENT PROGRAM

The Recommended Airport Improvement Plan will be organized into distinct projects and phased over the over the twenty-year planning horizon. The CIP will be coordinated with TCAA staff and the existing CIP to include both currently programmed and MPU related capital improvements for the Airport.

The development schedule will be based on the improvements needed to satisfy demand at the short-, intermediate-, and long-term activity levels and timeframes. Individual development projects will be phased to allow improvements to be designed and constructed and to account for FAA/FDOT grant cycles. The phasing process will be an iterative process with the financial plan to ensure that the CIP is both implementable and economically feasible.

7.1 VALIDATION AND REPROGRAMMING OF EXISTING FIVE-YEAR CIP

The existing CIP was originally defined as part of the MPU completed in 2005. As a part of this task, the Ricondo Team will review the Airports existing five-year CIP with TCAA staff and reprioritize/reprogram projects given the existing operational demand and federal and state funding eligibility criteria and potential based upon current regulatory guidance. The CIP will be evaluated from system wide perspective and include consideration for projects at COI and X21. The end product for this sub-task will be a revised five-year CIP provided in tabular form.

7.2 COORDINATE PROJECT SEQUENCING

Project sequencing will be discussed and reviewed with TCAA staff to identify the recommended short-, intermediate-, and long-term capital improvement projects to comprise the CIP list. The anticipated sequence for each project will be based on the improvements needed to satisfy demand during the planning periods and prerequisite project requirements where necessary. The various facility development projects will be prioritized and correlated with the staging plans for the Recommended Airport Improvement Plan resulting from the selected alternatives. The CIP phasing will be determined for the short- (0-5 years), intermediate- (6-10 years), and long-term (11-20 years) planning periods.

7.3 DEVELOP CIP AND FUNDING SOURCES

This subtask includes an overview of the various funding sources available for each project identified in the previous subtasks and color-coded drawings illustrating recommended phasing for project implementation to satisfy the needs of short-, intermediate-, and long- forecast of aviation demand. This subtask will also identify reasonable annual funding levels that can be used for financial planning purposes for each funding source identified, recognizing that funding eligibility does not equate to what can reasonable be anticipated as annual funding allocations. The CIP will be summarized in tabular format and organized by year and include the project name, escalated project cost, and potential funding sources. Short- and intermediate-term projects will be separated into design and construction (as appropriate) and long-term projects will be presented as a total cost, inclusive of design and construction.

7.4 PREPARE DRAFT PROJECT SUMMARIES AND EXHIBITS

This task will include the development of graphic exhibits depicting the proposed capital improvement projects for up to 25 projects. In addition, summary sheets will be developed for each project in the short- and intermediate-term planning periods. The summary sheets will facilitate the future programming of each project in the Joint Automated Capital Improvement Program (JACIP) for the Airport. It is anticipated the project summary sheets will include the following information:

- Name of and a brief description of the project
- Project justification: a brief explanation of why the project is needed
- Site information: Location map indicating the project location and clarifying limits of development/construction
- Projected timing (short- or intermediate-term) or demand trigger (if applicable)
- ROM cost for the proposed project including unit costs for civil line items and percentages for electrical and drainage items; costs will also be escalated accordingly
- FAA's National Priority Rating
- Source of funds: anticipated sources of funding for the projects
- Environmental documentation: identification of the type of environmental documentation (categorical exclusion, EA, or EIS) expected

7.5 PREPARE DRAFT WORKING PAPER

A draft CIP working paper summarizing the findings of each of the preceding tasks will be prepared and provided to Airport staff for their review. The draft working paper will be delivered to the Airport and other stakeholders (at the Airport staff's request) in Adobe PDF.

It is anticipated that Airport staff will review the draft working paper and provide comments to the Ricondo Team. Comments on the draft working paper will be addressed and responded to as appropriate and included in the final master plan report. A comment tracker, used throughout the MPU, will be developed to manage comments and responses. No supplemental draft will be issued.

7.6 MEETINGS

For budgeting purposes, it is assumed that the Ricondo Team would participate in up to two (2) meetings as part of this task. One meeting will be a teleconference using Microsoft Teams, or similar software, and one meeting will be in person at the TCAA office. For budgeting purposes, each meeting is anticipated to last approximately two (2) hours and be attended by up to two (2) members of the Ricondo Team. This subtask also includes the preparation and distribution of a summary of action items.

Exclusions

- Preparation of grant applications
- Preliminary engineering or architectural analysis

TASK 8. FINANCIAL PLAN

NOTE: The Financial Plan described in the task below considers the financial impact of the Recommended Airport Improvement Plans and CIPs for TIX, COI, and X21 collectively as a system of airports. The fee for this task has been spread across the three master plans (50% TIX, 30% COI, and 20% X21).

The results of the master planning analyses described in the prior tasks will be evaluated from a financial standpoint, taking into consideration expected levels of available FDOT, FAA entitlement, and FAA discretionary funding, availability of local funds, and any opportunities for third party funding. The analyses will help refine a phasing plan for the recommended improvements identified for TCAA that can be implemented in accordance with projected demand growth and emerging facility needs.

The financial plan will be prepared to outline the actions and initiatives necessary to carry out the CIP in a financially sound manner. Included in the financial plan will be the identification of specific funding sources, projections of revenues and expenses, and development of a preferred strategy for undertaking the CIP.

8.1 COLLECT AND REVIEW FINANCIAL DATA

The purpose of this task is to compile, present, and analyze applicable financial information for TCAA. This task will include a review of TCAA's financial structure to determine the composition of Airport management, relevant leases, and other operating issues that will affect future cash flow. The budgeting process used by TCAA will be examined and historical O&M expenses, operating revenue, and capital expenditures will be analyzed. The existing rates and charges schedule will also be examined, including tenant lease terms and rates. The financial information inventory will be used as a basis for development of the financial plan and feasibility of the capital program. Financial data will be collected to support the financial plan of this study and may include, but is not limited to, the following items:

- Summary of leases identifying key terms of each lease (if available)
- Most recent audited financial report
- Prior funding assistance
- Operating and maintenance expenditures, up to five years of available historical information
- Operating revenues, up to five years of available historical information
- General revenue fund balance, or current un-restricted cash on hand
- Anticipated capital expenditures for upcoming two years, including equipment, to be paid with TCAA cash funds/reserves

Ricondo will confirm significant data inputs with TCAA staff, including the assumptions of revenue and expense growth, lease renewals, and project impacts. After collection, Ricondo will work with TCAA staff to request and collect any additional information needed.

8.2 PREPARE FINANCIAL PLAN

This task includes the preparation of a financial plan for carrying out the proposed CIP for the Recommended Airport Improvement Plan and other recommendations/goals specified in the MPU. Included in the financial plan would be

the identification and quantification of the need for and availability of specific funding sources, projections of revenues and expenses, and a cash flow analysis. The output of this effort would consist of a financial plan that TCAA can use as a basis for implementing its proposed CIP.

8.2.1 PRO-FORMA ANALYSIS

The financial plan will assess, through the development of pro-forma financial projections, the financial implications of the funding plan. Pro-forma projections of operating expenses, operating revenues, and capital requirements of the CIP developed through prior tasks. Projections of operating revenues and expenses for the CIP will be based on the MPU's activity projections, assumptions regarding existing and anticipated future tenant leases, additional revenue enhancement opportunities, and estimated operating costs of proposed capital development projects.

8.2.2 SENSITIVITY ANALYSIS

Up to two (2) sensitivity scenarios will be developed to assess the potential financial implications of changes to key assumptions and variables, such as projected revenues, expenses, and activity. These sensitivity scenarios are not intended to be updated projections of activity, revenues, expenses, or other factors. Rather, the sensitivity scenarios will identify the projected range of financial outcomes that could occur. One additional sensitivity scenario will include the identification of potential opportunities for revenue enhancement at the TCAA airports. Such opportunities are likely to be in the form of non-aeronautical revenues.

8.3 PREPARE DRAFT OF FINANCIAL PLAN

A preliminary draft Financial Plan working paper summarizing the findings of each of the preceding tasks will be prepared and provided to TCAA staff for their review. The preliminary draft working paper will be delivered to the TCAA and other stakeholders (at TCAA staff's request) in Adobe PDF.

It is anticipated that Airport staff will review the draft working paper and provide comments to the Ricondo Team. Comments on the draft working paper will be addressed and responded to as appropriate and included in the final master plan report. A comment tracker, used throughout the MPU, will be developed to manage comments and responses. No supplemental draft will be issued.

8.4 MEETINGS

For budgeting purposes, it has been assumed that the Ricondo Team would participate in one (1) conference call using Microsoft Teams, or similar software, with TCAA staff during the duration of this task. The meeting is anticipated to last approximately four (4) hours and be attended by up to two (2) members of the Ricondo Team. This subtask also includes the preparation and distribution of meeting minutes.

TASK 9. REFINE THE PREFERRED ALTERNATIVE

9.1 ALTERNATIVE REFINEMENT

The Ricondo Team anticipates that during the evaluation of alternatives and selection of the Recommended Airport Improvement Plan, items may be identified relative to the various factors evaluated (design standards, environmental considerations, operational impacts, phasing, cost/affordability, or other factors) that will require further refinement. This task will focus on refining the Recommended Airport Improvement Plan to respond to any of the issues identified during the evaluation and selection process.

In addition, this subtask will serve to expand the level of detail and analysis provided for the Recommended Airport Improvement Plan. Additional detail will be provided relative to overall facility layouts, implementation impacts, and costs and financial impacts. As necessary, the Recommended Airport Improvement Plan will be refined relative to specific issues that may have been raised by TCAA staff or other parties during the evaluation and selection process..

The alternatives refinement will conclude with the preparation of an AutoCAD drawing depicting the following elements, among others:

- prominent Airport facilities such as runways, taxiways, aprons, holding bays, blast pads, extended runway safety areas, buildings, NAVAIDs, parking areas, roads, and major drainage facilities
- revenue-producing nonaviation-related land uses
- areas reserved for future aviation development, including parcels that will be reserved for the ultimate development of aeronautical facilities
- areas reserved for nonaviation development
- GA/FBO and associated support facilities
- approach and departure surfaces and RPZ outlines
- pertinent dimensional data such as runway and taxiway widths and runway lengths, taxiway/runway/apron clearances and safety areas, apron dimensions, building restriction lines, clear zones (safety areas, object free areas, and obstacle free zones)

9.2 MEETINGS

For budgeting purposes, it has been assumed that the Ricondo Team would participate in one (1) teleconference with TCAA staff during the duration of this task. The meeting is anticipated to last approximately two (2) hours and be attended by up to two (2) members of the Ricondo Team. This subtask includes the preparation of the PowerPoint presentation to support the meeting and the preparation and distribution of a summary of action items.

Exclusions

- 3D renderings of the Recommended Airport Improvement Plan

TASK 10. AIRPORT LAYOUT PLAN SET

This effort is intended to produce the ALP drawing set required for the FAA and FDOT to review and conditionally approve the Recommended Airport Improvement Plan for the Airport. The ALP will be prepared in accordance with FAA standards as defined in FAA AC 150/5070-6, *Airport Master Plans*, FAA AC 150/5300-13B, *Airport Design*, and FAA ARP Standard Operating Procedure (SOP) 2.00, Review and Approval of ALPs. To support the submittal of this updated planning product, the Ricondo Team will also review, complete, and submit the checklist that is provided in the FAA SOP 2.00.

10.1 TITLE SHEET

A title sheet will be prepared in accordance with the FAA SOP 2.00 checklist to serve as the drawing set cover sheet. This title sheet will include pertinent information such as the airport name, owner/operator, location, and plan set preparer. An index of drawings, graphic representations of the airport location and airport vicinity will also be presented on the title sheet.

10.2 AIRPORT DATA SHEET

This sheet will contain data specific to the Airport Layout Plan sheet. This data will include the wind roses for the Airport's runways, runway data, safety separation distances, declared distance charts, elevations of specific Airport, runway and taxiway points, etc. Existing and proposed modifications to FAA airport design standards will be identified and delineated in table format along with either the waiver allowing the modification or the proposed method of addressing the modification. A table listing any modifications (existing and proposed) along with their proposed disposition will be incorporated onto the ALP sheet. The taxiway design group (TDG) for each taxiway will be identified along with other information specified in FAA SOP 2.00 ALP Review Checklist.

10.3 EXISTING AIRPORT LAYOUT PLAN

Utilizing new digital mapping for the Airport collected in Task 2, a new drawing will be created to identify facilities and geographical features at the Airport as they currently exist. This drawing will include existing structures, pavements, imaginary surfaces, NAVAIDs (visual and instrument), ground contours, runway protection zones, runway safety areas, property interests, and other pertinent dimensional data recommended by the FAA.

This drawing will reflect projects and other airport improvements that have materialized since the current ALP was last approved. This drawing will also depict the configuration and general dimensioning of the existing airport facilities, including surveyed building heights of all buildings on airport property. The Airport Reference Point (ARP), key elevations, runway end latitude/longitude coordinates, and runway approach surfaces will also be identified. The drawing will also include a legend and applicable notes section, wind roses, and wind coverage tables to be developed under Task 1A as well as a runway data and building data tables. The runway data table will include information such as Approach and Departure Reference Code (APRC and DPRC), Runway Design Code (RDC), runway length, runway width, runway end elevation, runway lighting, runway marking, pavement type, pavement strength and NAVAIDs (visual and instrument). The "true" and magnetic north will also be depicted, which will require the calculation of the magnetic declination at the Airport. Deviations to FAA design standards will be identified and noted appropriately.

The scale of the drawing will be defined at the time the ALP set is commenced and will be determined to provide a clearly legible drawing with all requisite data readily discernible. The scale of the drawing, however, will fall within the range of 1" = 200' and 1" = 600', in accordance with the FAA checklist.

10.4 AIRPORT LAYOUT PLAN

The Ricondo Team will create an ALP to reflect the Recommended Airport Improvement Plan. The ALP will illustrate existing and proposed airfield pavements, roadway and parking pavement/structures, runway markings, on-airport structures, key drainage features, NAVAIDs (visual and instrument), off-airport structures that are located in the immediate vicinity of the Airport, and other miscellaneous natural and man-made items. Established survey monuments located on or in the immediate vicinity of the Airport will also be identified.

Ground contours, runway protection zones, runway safety and object free areas, future property interests, and other pertinent dimensional data recommended by the FAA will also be depicted on the plan. The ARP (existing and proposed), the APRC and DPRC, and RDC for each runway, key elevations, runway end latitude/longitude coordinates, and runway approach surfaces will also be identified. Any proposed improvements and/or changes to these items will be depicted graphically and identified.

The ALP will be developed in accordance with the FAA checklist. Thus, each of the components of the ALP will contain the information necessary to obtain approval from the FAA.

10.5 AIRPORT AIRSPACE DRAWING

This drawing will depict the 14 Code of Federal Regulations (CFR) Part 77 (Part 77) imaginary surfaces as they relate to the Airport's immediate airspace in a plan and profile view. The plan view will be prepared at an approximate scale of 1" = 2,000' and will be overlaid onto a USGS 7-minute quadrangle base map (or orthophotography) of the surrounding area. The profile view will be prepared at a horizontal scale of 1" = 1,000' and a vertical scale of 1" = 100'.

The plan will illustrate the ultimate runway configuration of the airfield with key elevations of the surfaces and stationing from the runway ends being referenced. Fifty (50) foot contour intervals will be shown for all Part 77 sloping imaginary surfaces. This sheet will depict objects penetrating Part 77 surfaces that have not been identified on the ALP or inner approach drawings. The top elevation of each obstruction will be identified on the drawing, as will the disposition of the obstruction in a tabular format. The dimensions of the approach surfaces and transitional surfaces will be charted. Obstruction heights will be obtained from the new digital mapping and other available resources. In addition, all known obstructions to navigable airspace off-Airport will be identified using the latest USGS mapping, the NOAA Obstruction Chart, and the aeronautical sectional chart as applicable. No field obstruction surveys, however, will be completed as part of this subtask.

The FAA checklist will be reviewed (and completed) to confirm that the airport airspace drawing contains the information required by the FAA.

10.6 INNER PORTION OF THE APPROACH SURFACE DRAWINGS

These drawings will depict plan and profile views of the inner portion of the approach to each ultimate runway end at the Airport. These drawings will utilize a 1" = 200' horizontal scale for the plan and profile views and a 1" = 20' vertical scale for the profile views. The plan/profile extents will cover from the referenced runway out to a point

where the approach surface reaches a 100-foot height above the runway end. The new digital base mapping will be used to identify obstructions to navigable airspace.

In accordance with the FAA checklist, these drawings will depict the obstacle identification surfaces contained in Part 77, runway end/threshold siting surfaces, and Glideslope Qualification Surfaces (GQS). Obstructions will be listed numerically in tabular format for each approach with data describing the obstruction type; the surfaces penetrated top elevation, allowable elevation, amount of penetration, and proposed disposition. Elevations of roads, railroads, power poles, trees, buildings, and other objects that are located within the approaches will also be shown.

The drawings will also depict the runway end/threshold siting surfaces associated with each runway end. These surfaces will be defined based on the type of instrument approaches anticipated and the design aircraft for each runway end in accordance with the standards defined in FAA AC 5300-13B, *Airport Design*.

10.7 DEPARTURE SURFACE DRAWING

This subtask includes the preparation of a drawing depicting the departure surfaces prescribed in FAA Order 8260.3D, *United States Standard for Terminal Instrument Procedures (TERPS)* for each runway end. The sheet will consist of a scaled plan and profile drawing of the area within the 40:1 departure surface. The drawing will depict the location of potential obstructions and corresponding tables listing objects, departure surface penetrations, object top elevation, and proposed disposition.

10.8 EXISTING LAND USE DRAWING

This drawing will depict land uses on and adjacent to existing Airport property. The on-Airport land uses will be depicted by general use categories such as aviation, commercial, industrial, non-aviation revenue producing, public use, etc. The off-airport land uses in the immediate vicinity of the Airport will be defined based on the City of Titusville land use maps.

10.9 PROPOSED LAND USE DRAWING

This drawing will depict proposed land uses on and adjacent to existing and proposed Airport property. Similar to the Existing Land Use Drawing, the on-Airport land uses will be depicted by general use categories such as aviation, commercial, industrial, non-aviation revenue producing, public use, etc. The specific designations to land use within the airport property limits will be discussed with TCAA staff and be revised as directed to reflect the categories that are desired and recommended as part of the MPU. The off-airport land uses in the immediate vicinity of the Airport will be defined based on the City of Titusville land use maps.

10.10 DELIVERABLES

10.10.1 DRAFT AIRPORT LAYOUT PLAN SET

The subtask includes the preparation and submission of an electronic (Adobe PDF) version and two (2) 24-inch by 36-inch hard copy sets of the ALP Set to TCAA staff for review and comment. It is anticipated that Airport staff will review the draft ALP set and provide comment and feedback to the Ricondo Team.

10.10.2 REVISE DRAFT AIRPORT LAYOUT PLAN AND RESPOND TO SPONSOR COMMENTS

The Ricondo Team will revise the ALP drawing set based on the comments received from the Airport accordingly. A revision tracker will be developed and utilized to summarize sponsor comments and the Ricondo Team's response.

10.10.3 PREPARE CHECKLISTS ACCORDING TO SOP 2.00

This subtask includes the preparation of the SOP 2.00 checklist for submission to the FAA and FDOT. The checklist will be prepared electronically and submitted to the FAA and FDOT during the ALP drawing set submissions.

10.10.4 REVISED DRAFT AIRPORT LAYOUT PLAN SET SUBMITTAL

Once comments have been received from TCAA staff and addressed, three (3) copies of the revised draft Airport Layout Plan drawing set will be submitted to TIX for distribution to the FAA (one copy), FDOT Aviation and Spaceports Office (one copy), and Airport staff (one copy). An electronic version of the drawings set will also be provided in Adobe PDF. The checklist prepared as part of the previous subtask will also be submitted to the FAA and FDOT to assist in the review process.

10.10.5 REVISE DRAFT AIRPORT LAYOUT PLAN SET AND RESPOND TO FAA AND FDOT COMMENTS

The Ricondo Team will revise the ALP drawing set based on the comments received from the FAA and FDOT accordingly. A revision tracker will be developed and utilized to summarize the FAA and FDOT comments and the Ricondo Team's response.

10.10.6 PREPARE FINAL AIRPORT LAYOUT PLAN SET

Once comments have been received from FAA and FDOT and addressed, eight (8) copies of the final Airport Layout Plan drawing set will be submitted to TIX for distribution to the FAA (five copies), FDOT Aviation and Spaceports Office (one copy), and Airport staff (two copies). An electronic version of the drawings set will also be provided in Adobe PDF. It is assumed that TIX will be responsible for forwarding the Airport Plans set to the FAA ADO for their review, coordination, approval, and signature. An electronic version of the drawings set will also be provided. The final drawings will be provided in both AutoCAD and Adobe PDF formats.

10.11 MEETINGS

For budgeting purposes, it has been assumed that the Ricondo Team would participate in one (1) two (2) hour ALP "page flip" at the Airport. This meeting will provide an opportunity to present the draft ALP drawing set to TCAA staff and to review the proposed projects to be reflected on the ALP. The meeting will be attended by up to two (2) members of the Ricondo Team. This subtask includes the plotting of two (2) ALP sets and the preparation and distribution of a summary of action items.

Exclusions

- Terminal Area Plan
- Utility Plan

TASK 11. EXHIBIT 'A' AIRPORT PROPERTY INVENTORY MAP

11.1 TITLE WORK

This subtask will include researching the ownership, easements, agreements, and encumbrances associated with a maximum of 33 parcels. The Ricondo Team will review the Airport Property Map dated August 2005 and any additional property records provided by the TCAA and the Brevard County Property Appraiser. To ensure the proper identification of all parcels to be searched, the team will use the information shown on the map(s) to develop a master spreadsheet. This spreadsheet will serve as the project control document for all parcels within the project area. The following steps will be taken to ensure that all parcels have been properly identified and assigned:

- The tax identification number(s) for each parcel are confirmed against county records.
- The tax information is entered on the master spreadsheet.
- Parcels are “batched” according to relevant criteria.
- The abstractor(s) assigned to the parcel(s) will research the titles from the earliest public records, unless otherwise specifically directed by TCAA staff, for all airport ownership, easements, agreements, etc. (No leases, liens or mortgages will be included).
- Independently research the parent tract for contiguous lands.

Upon the completion of the research, a Specific Purpose Report will be completed on each Parcel ID number. Parcel ID's with the same vesting information will be combined into one report.

11.2 BOUNDARY SURVEY

The Ricondo Team will perform a Boundary Survey of up to 33 parcels combined to form approximately 1,911+/- acres assumed to represent property owned by the TCAA, as depicted on the Airport Property Map dated August 2005. Additionally, a maximum of twelve (12) easements are assumed to be owned by the TCAA. Title reports produced as part of subtask 11.1 will be reviewed to determine encumbrances reflected therein that should be reflected on the boundary survey of each property. Individual small parcels of land originally acquired for noise purposes will not be individually surveyed as part of this project. Property acquired since the August 2005 map will be added to the property inventory.

Once the field data collection is completed and all field QA/QC checks have been made, all raw data files will be processed and subsequently imported into AutoCAD software for the creation of the final project drawings and reports. The final Boundary Survey deliverable will be compiled from all field data collected, a review of all title searches and documentation amassed from public records sources for each individual parcel boundary survey.

The field location of each parcel's boundary monumentation will be compared to the legal description of each parcel and the final location of each parcel boundary will be determined. All work will be performed in accordance with the standards of practice outlined in Chapter 5J-17 of the Florida Administrative Code, pursuant to Section 472.027, Florida Statutes.

11.3 EXHIBIT 'A' AIRPORT PROPERTY INVENTORY MAP

This subtask includes the development of an Exhibit 'A' Airport Property Inventory Map. The deliverable will be prepared at a scale equal to that of the ALP and will depict the existing airport property boundary as well as proposed acquisition areas. The drawing will indicate in matrix form how, when, and from whom the various parcels were acquired. The data table will include (if available): number or letter and area of each parcel or easement, date property was acquired or disposed (recorded date), recorded document number (book/page), encumbrance (if applicable), Brevard County Tax ID, Federal Aid project number under which the property acquisition was reimbursed, type of acquisition (i.e. AIP-noise, AIP entitlement, surplus property, local purchase, local donation, condemnation, other), grantor of property, and acreage. The Exhibit 'A' Airport Property Inventory Map will also document existing easements within the Airport boundary.

The updating of the property map will conform with the guidelines discussed in the FAA's Standard Operating Procedure (SOP 3.00) for FAA Review of Exhibit 'A' Airport Property Inventory Maps (dated October 1, 2013). FAA SOP 2.00 also provides the same Airport Property Inventory Map/Exhibit A guidelines.

11.4 PREPARE CHECKLIST ACCORDING TO SOP 3.00

The SOP 3.00 Exhibit 'A' Review Checklist will be completed to ensure that all FAA Exhibit 'A' Property Inventory Map requirements are met. The checklist will be submitted to TCAA as part of the Exhibit 'A' Property Inventory Map package for review and comment. Additionally, this checklist will be submitted to the FAA to aide in the review process of the Exhibit 'A' Property Inventory Map set.

11.5 MEETINGS

The Ricondo Team anticipates that up to six (6) teleconferences will be conducted as part of this subtask: four (4) with the title abstractor and surveyor and two (2) with TCAA staff. Each meeting is anticipated to last approximately one (1) hour and be attended by up to two (2) members of the Ricondo Team. A summary of action items will be developed for the two meetings with TCAA staff.

Exclusions

- No residential aviation easement identification and mapping beyond what is provided on the April 2007 Airport Property Map.
- No site improvements/encroachments will be located as part of each boundary survey.

TASK 12. DOCUMENTATION

The final MPU deliverables will include technical reports for each of the key tasks, an Executive-Summary (brochure format), and an executive level PowerPoint slide deck briefing.

12.1 DEVELOP POWERPOINT TEMPLATE

This task will include the development of a professionally designed PowerPoint template used throughout the master planning process. The template will be designed to incorporate the Airport's branding, including logo, fonts, and color schemes. The PowerPoint template will be used in all stakeholder and public outreach efforts and for all presentations related to the MPU.

12.2 EXECUTIVE SUMMARY

12.2.1 PREPARE EXECUTIVE SUMMARY BROCHURE

The Ricondo Team will prepare and submit a draft Executive Summary in a brochure format that summarizes the results of the aviation forecasts, the facility requirements, alternatives, Recommended Airport Improvement Plan, and CIP to TCAA staff for review and comment. Upon receipt of TCAA staff comments, the Ricondo Team will prepare a final draft for TCAA review and comment. Following the final review by TCAA staff, the Ricondo Team will prepare the final Executive Summary brochure which will include up to 20 single-sided pages (8.5"x 11" using 100 lb. paper) with color exhibits. The Ricondo team will provide a total of 25 copies and an electronic file version in Adobe PDF format of the Executive Summary.

12.2.2 PREPARE EXECUTIVE SUMMARY POWERPOINT

In consultation with TCAA staff, the Ricondo Team will develop a concise (not to exceed 25 slides) PowerPoint presentation summarizing the MPU process, Recommended Airport Improvement Plan, and CIP.

12.3 PREPARE DRAFT AIRPORT MASTER PLAN UPDATE REPORT

A draft MPU report will be prepared that will summarize the findings of each of the tasks described earlier, delineating the methodology, assumptions, and findings of the various planning analyses undertaken.

This MPU report will be comprehensive in terms of the information presented to allow review and comment by the appropriate parties. Upon receipt of review and comments from the TCAA, the report will be finalized, representing the MPU Final Report. Five (5) comb bound draft final reports will be prepared for distribution. In addition, an electronic file version in Adobe PDF format of the draft report will be provided.

12.4 RESPOND TO SPONSOR, FAA, AND FDOT COMMENTS

Upon receipt of comments from TCAA staff, FAA, and FDOT on the draft MPU Report, the Ricondo Team will revise the report and prepare a response to the comments. The comments will be summarized using a comment tracker.

12.5 PREPARE FINAL AIRPORT MASTER PLAN UPDATE REPORT

The MPU Final Report, consolidating all working papers for each of the key tasks included in this Scope of Services, will be prepared after all agency and participants have made their comments on the draft final report and TCAA staff has directed the Ricondo Team to incorporate these comments into a final report.

Twelve (12) bound final reports of the TIX MPU will be prepared for distribution. Of these copies, one (1) will be forwarded to the FAA's Orlando ADO, and one (1) will be forwarded to the FDOT Aviation and Spaceports office. The remaining ten (10) copies will be sent to the TCAA staff for internal and TCAA distribution -one (1) copy for each of the seven (7) board members and three (3) copies for TCAA staff. Files of final chapters and associated graphics will be provided electronically to TCAA staff.

TASK 13. PROJECT ADMINISTRATION AND COORDINATION

13.1 GRANT SERVICES

The Ricondo Team will provide grant services to TCAA staff in the form of assistance with the preparation and submittal of Grant Pre-Applications, Grant Applications, FAA Quarterly Grant Reports and Grant Closeout Documents. Grant application assistance will include the development of project descriptions and justifications, verifications of project costs, and the completion of Categorical Exclusion (CATEX) documentation. Quarterly reporting assistance will include the preparation of the Grant Quarterly Report Checklist, Project Status Summary, and Outlay Report/Reimbursement documentation. Grant closeout documentation gathered will include a project closeout summary, DBE participation summary, project cost summary, outlay report, and distribution cost summary.

13.2 DEVELOP MONTHLY STATUS REPORTS

This subtask will include the development of project status reports on a monthly basis and invoicing of the project. The status reports will describe progress on a task-by-task basis. For budgeting purposes, it is anticipated that sixteen (16) monthly status reports will be prepared.

13.3 OTHER MEETINGS (IN ADDITION TO THOSE IDENTIFIED WITHIN THE PREVIOUS INDIVIDUAL TASKS)

13.3.1 KICK-OFF MEETING

The Ricondo Team (including up to two representatives from the Ricondo Team) will participate in a project kick-off meeting to discuss project objectives and schedules with TCAA staff and other agencies, (e.g., FAA, FDOT). The Ricondo Team will prepare meeting/presentation materials, using Microsoft PowerPoint, to provide a general overview of the Study. For budgeting purposes, it is anticipated the kick-off meeting will last up to two (2) hours.

13.3.2 TCAA STAFF COORDINATION CALLS

In addition to the kick-off meeting, additional meetings to facilitate coordination, provide updates and present progress on specific study elements or technical analyses are needed between the Ricondo Team and TCAA staff. For budgeting purposes, it has been assumed that one (1) member of the Ricondo Team will participate in up to twelve (12) one (1) hour web conference sessions using Microsoft Teams or similar software. These web conference sessions will provide an opportunity to discuss the status of the MPU, preliminary findings, etc. An agenda for these conference sessions will be prepared and distributed to TCAA staff.

13.3.3 FAA COORDINATION BRIEFINGS

This proposal includes up to two (2) separate meetings between the Ricondo Team, TCAA staff, and the FAA to provide updates, request feedback, and present progress on specific study elements or technical analyses of the MPU. For budgeting purposes, it has been assumed that two (2) members of the Ricondo Team would participate in two (2) in-person meetings at the FAA's Orlando ADO. Each meeting is estimated to last two (2) hours and are anticipated to include the topics:

- Aviation activity forecast, aircraft fleet mix, and design aircraft
- ALP set review

The development of the material noted above, including accompanying technical analyses, would be conducted as part of each specific task. However, this subtask includes the effort needed to compile and prepare a presentation on the items noted above, as well as the preparation and distribution of meeting minutes.

13.3.4 FDOT COORDINATION BRIEFING

In addition to the two TAP briefings (see Task 1E), a separate meeting (1 meeting) to facilitate coordination, provide updates and present progress on specific study elements or technical analyses is likely to be required between the Ricondo Team, TCAA staff, and FDOT. For budgeting purposes, it has been assumed that the two (2) hour meeting would be conducted via a web conference using Microsoft Teams or similar software. Alternatively, this meeting could take place before or after one of the meetings that will take place at the Airport. This subtask also includes the preparation of the presentation and materials to be presented during the meeting, as well as the preparation and distribution of meeting minutes. This meeting will be attended by up to two (2) members of the Ricondo Team.

Exclusions

- Separate kick-off meetings with FAA, FDOT, or regional/local agencies

FEE PROPOSAL AND SCHEDULE OF MEETINGS

The lump sum fees (by firm) for the professional planning services outlined in this Scope of Services are summarized in **Table 2. Appendix A** provides a cost breakdown by subtask and labor category for Ricondo. Proposals from Ricondo's sub-consultants are included in **Appendix B** through **E**.

Table 3 provides a summary of the meetings that are anticipated to take place during the MPU.

TABLE 2: SPACE COAST REGIONAL AIRPORT MASTER PLAN UPDATE FEE PROPOSAL

Tasks		Ricondo	AID (DBE)	Brown & Phillips, Inc. (DBE)	The Quotient Group (DBE)	Martinez Geospatial (DBE)	Total
1A	Inventory of Existing Conditions	\$ 20,194.00	\$ 50,488.00	\$ -	\$ 4,000.00	\$ -	\$ 74,682.00
1B	Emerging Trends and Technologies	\$ 6,200.00	\$ -	\$ -	\$ -	\$ -	\$ 6,200.00
1C	Visioning Session with TCAA Board	\$ 4,689.00	\$ 276.00	\$ -	\$ -	\$ -	\$ 4,965.00
1D	Strengths and Opportunities Assessment	\$ 5,209.00	\$ 276.00	\$ -	\$ -	\$ -	\$ 5,485.00
1E	Stakeholder and Public Involvement	\$ 49,016.00	\$ 2,028.00	\$ -	\$ 7,500.00	\$ -	\$ 58,544.00
2	Aerial Surveying and Mapping	\$ 8,380.00	\$ -	\$ 35,343.00	\$ -	\$ 110,594.53	\$ 154,317.53
3A	Aviation Activity Forecasts	\$ 33,183.00	\$ -	\$ -	\$ -	\$ -	\$ 33,183.00
3B	Market Assessment/Land Use Planning	\$ 16,794.00	\$ -	\$ -	\$ -	\$ -	\$ 16,794.00
4	Demand/Capacity Analysis and Airport	\$ 50,469.00	\$ -	\$ -	\$ -	\$ -	\$ 50,469.00
5	Formulate Alternatives	\$ 39,869.00	\$ 14,984.00	\$ -	\$ -	\$ -	\$ 54,853.00
6	Environmental Overview	\$ 11,922.00	\$ -	\$ -	\$ -	\$ -	\$ 11,922.00
7	Capital Improvement Program	\$ 49,710.00	\$ -	\$ -	\$ -	\$ -	\$ 49,710.00
8	Financial Plan	\$ 43,036.00	\$ -	\$ -	\$ -	\$ -	\$ 43,036.00
9	Refine The Preferred Alternative	\$ 10,724.00	\$ -	\$ -	\$ -	\$ -	\$ 10,724.00
10	Airport Layout Plan Set	\$ 64,708.00	\$ -	\$ -	\$ -	\$ -	\$ 64,708.00
11	Exhibit 'A' Airport Property Inventory Map	\$ 2,240.00	\$ 29,770.00	\$ 22,012.00	\$ -	\$ -	\$ 54,022.00
12	Documentation	\$ 43,912.00	\$ -	\$ -	\$ 6,000.00	\$ -	\$ 49,912.00
13	Project Administration and Coordination	\$ 16,816.00	\$ 17,272.00	\$ -	\$ -	\$ -	\$ 34,088.00
Grand Total		\$ 477,071.00	\$ 115,094.00	\$ 57,355.00	\$ 17,500.00	\$ 110,594.53	\$ 777,614.53
Share By Firm		61.35%	14.80%	7.38%	2.25%	14.22%	100.00%
DBE Total		38.6%					
SOURCES: Ricondo & Associates, Inc., May 2022; American Infrastructure Development, Inc., May 2022; Martinez Geospatial Proposal, May 2022; Brown & Phillips, Inc., May 2022; The Quotient Group, May 2022.							
Legend							
Costs Spread Evenly Across Three MPUs							
Costs Spread Across Three MPUs - 50% TIX, 30% COI, and 20% X21							
Costs for Subtasks 1E.3.2 and 1E.4.2 Spread Evenly Across Three MPUs							

TABLE 3: SPACE COAST REGIONAL AIRPORT MASTER PLAN UPDATE SCHEDULE OF MEETINGS

MEETING NUMBER	ASSOC. TASK NUMBER	MEETING DESCRIPTION	ANTICIPATED DURATION	RICONDO TEAM PARTICIPANTS	MEETING MATERIALS PREPARED
1	1A	Site Visit	8 hours	2	None
2	1C	Visioning Session	2 hours	3	PowerPoint Presentation
3	1D	Strength and Opportunities Assessment (Meeting with TCAA Staff)	2 hours	2	PowerPoint Presentation, Summary of Action Items
4	1D	Strength and Opportunities Assessment (Meeting with TCAA Board Members)	2 hours	2	PowerPoint Presentation
5	1E	TAP Briefing #1	2 hours	2	PowerPoint Presentation, Meeting Minutes
6	1E	TAP Briefing #2	2 hours	2	PowerPoint Presentation, Meeting Minutes
7	1E	TAP Briefing #3	2 hours	2	PowerPoint Presentation, Meeting Minutes
8	1E	CAP Briefing #1	2 hours	2	PowerPoint Presentation, Meeting Minutes
9	1E	CAP Briefing #2	2 hours	2	PowerPoint Presentation, Meeting Minutes
10	1E	CAP Briefing #3	2 hours	2	PowerPoint Presentation, Meeting Minutes
11	1E	TCAA Workshop #1	2 hours	2	Display Boards and/or PowerPoint Presentations, Meeting Minutes
12	1E	TCAA Workshop #2	2 hours	2	Display Boards and/or PowerPoint Presentations, Meeting Minutes
13	1E	TCAA Board Meeting #1	2 hours	2	PowerPoint Presentation
14	1E	TCAA Board Meeting #2	2 hours	2	PowerPoint Presentation
15	1E	Public Workshop #1	3 hours	3	Meeting Notice, Meeting Advertisement, Completed Comment forms and Sign-in Sheets, Summary of Action Items
16	1E	Public Workshop #2	3 hours	3	Meeting Notice, Meeting Advertisement, Completed Comment forms and Sign-in Sheets, Summary of Action Items
17	3A	FBOs Coordination Meeting (Virtual Meeting)	2 hours	2	PowerPoint Presentation
18	3A	FBOs Coordination Meeting (Virtual Meeting)	2 hours	2	PowerPoint Presentation
19	3A	TCAA Briefing (Virtual Meeting)	2 hours	2	PowerPoint Presentation, Summary of Action Items
20	3A	FAA/FDOT Briefing (Virtual Meeting)	2 hours	2	PowerPoint Presentation, Summary of Action Items
21	3B	TCAA Coordination Meeting (Virtual Meeting)	2 hours	1	PowerPoint Presentation
22	3B	TCAA Coordination Meeting	2 hours	1	PowerPoint Presentation
23	4	TCAA Coordination Meeting (Virtual Meeting)	2 hours	2	PowerPoint Presentation, Summary of Action Items
24	5	TCAA Coordination Meeting	2 hours	2	PowerPoint Presentation, Summary of Action Items
25	5	TCAA Coordination Meeting	2 hours	2	PowerPoint Presentation, Summary of Action Items
26	6	TCAA Coordination Meeting (Virtual Meeting)	2 hours	2	PowerPoint Presentation, Summary of Action Items
27	7	TCAA Coordination Meeting (Virtual Meeting)	2 hours	2	PowerPoint Presentation, Summary of Action Items
28	7	TCAA Coordination Meeting (TCAA Office)	2 hours	2	PowerPoint Presentation, Summary of Action Items

MEETING NUMBER	ASSOC. TASK NUMBER	MEETING DESCRIPTION	ANTICIPATED DURATION	RICONDO TEAM PARTICIPANTS	MEETING MATERIALS PREPARED
29	8	TCAA Coordination Meeting (Virtual Meeting)	4 hours	2	PowerPoint Presentation, Meeting Minutes
30	9	TCAA Coordination Meeting (Virtual Meeting)	2 hours	2	PowerPoint Presentation, Summary of Action Items
31	10	ALP "Page Flip"	2 hours	2	2 ALP Sets, Summary of Action Items
32	11	TCAA Coordination Meeting (Virtual Meeting) x 2	1 hour	2	Summary of Action Items
33	11	Title Abstractor (Virtual Meeting) x 4	1 hour	2	None
34	13	Kick-Off Meeting	2 hours	2	PowerPoint Presentation
35	13	TCAA Staff Coordination Calls (Virtual Meeting) x 12	1 hour	1	Agenda, Summary of Action Items
36	13	FAA Coordination Briefings (at FAA's Orlando ADO) – Forecasts, Fleet Mix, Design Aircraft	2 hours	2	PowerPoint Presentation, Meeting Minutes
37	13	FAA Coordination Briefings at FAA's Orlando ADO – ALP Set Review	2 hours	2	ALP Set and Meeting Minutes
38	13	FDOT Coordination Briefing (Virtual Meeting)	2 hours	2	PowerPoint Presentation, Meeting Minutes

NOTES:

ADO – Airports District Office

ALP – Airport Layout Plan

CAP – Citizens Advisory Panel

FAA – Federal Aviation Administration

FDOT – Florida Department of Transportation

TAP – Technical Advisory Panel

TCAA – Titusville-Cocoa Airport Authority

1. The meetings are anticipated to be held on-site at the TCAA Administration Building unless otherwise indicated in the table above.

APPENDIX A RICONDO & ASSOCIATES, INC. FEE PROPOSAL

Space Coast Regional Airport (TIX)
Airport Master Plan Update
Labor/Fee Estimate Summary - Ricondo & Associates, Inc.

LEGEND

Highlighted tasks include elements that are applicable to the TIX, COI, and X21 Airport Master Plan Updates. The total costs for these tasks have been spread across the three Airport Master Plans. The hours and expenses on this Labor/Fee Estimate Summary do not reflect task totals, only the portion allocated to this Airport Master Plan.

BILLING RATE (SEE NOTE #1):													\$	389.00	\$	330.00	\$	260.00	\$	160.00	\$	142.00	\$	120.00
													LABOR ESTIMATE (HOURS)					FEE ESTIMATE (\$)						
Task Number and Description		Responsibility	Officer	Director	Managing Consultant	Senior Consultant	Consultant	Technical Specialist	Total	Labor	Expenses	Sub - consultants Expenses	Total											
1A	Inventory of Existing Conditions			2	2	44	14	8	32	102	\$	20,094	\$	100	\$	-	\$	20,194						
1A.1	Background, Airport History, and Aeronautical Role		AID/R&A	0	0	2	0	0	0	2	\$	520					\$	520						
1A.2	Inventory of Airport Physical Facilities																							
1A.2.1	Airfield		AID/R&A	0	0	1	0	0	0	1	\$	260					\$	260						
1A.2.2	Fixed Base Operator/General Aviation Facilities		AID/R&A	0	0	1	0	0	0	1	\$	260					\$	260						
1A.2.3	Support Facilities		AID/R&A	0	0	1	0	0	0	1	\$	260					\$	260						
1A.2.4	Non-Aeronautical Facilities		AID/R&A	0	0	2	0	0	0	2	\$	520					\$	520						
1A.2.5	Facilities Condition and Age Estimation		AID/R&A	0	0	2	0	0	0	2	\$	520					\$	520						
1A.3	Airspace Data		AID/R&A	0	0	1	0	0	0	1	\$	260					\$	260						
1A.4	Meteorological Conditions		AID/R&A	0	0	1	0	0	0	1	\$	260					\$	260						
1A.5	Land Use																							
1A.5.1	On-Airport		AID/R&A	0	0	1	0	0	0	1	\$	260					\$	260						
1A.5.2	Off-Airport		AID/R&A	0	0	1	0	0	0	1	\$	260					\$	260						
1A.6	Utilities		AID/R&A	0	0	2	0	0	0	2	\$	520					\$	520						
1A.7	Socioeconomic Data		R&A	0	0	3	2	0	8	13	\$	2,060					\$	2,060						
1A.8	Environmental Conditions		R&A	1	2	8	12	0	20	43	\$	7,449					\$	7,449						
1A.9	Tenant Surveys		TQG/R&A	0	0	2	0	0	4	6	\$	1,000					\$	1,000						
1A.10	Prepare Draft Working Paper		AID/R&A	1	0	8	0	8	17	\$	3,605						\$	3,605						
1A.11	Meetings (1 in person meeting)		AID/R&A	0	0	8	0	0	8	\$	2,080	\$	100				\$	2,180						
1B	Emerging Trends and Technologies			0	0	11	12	10	0	33	\$	6,200	\$	-	\$	-	\$	6,200						
1B.1	Emerging Trends and Technologies		R&A	0	0	8	4	4	0	16	\$	3,288					\$	3,288						
1B.2	Review of General Aviation Industry Trends and Factors Affecting Demand		R&A	0	0	3	8	6	0	17	\$	2,912					\$	2,912						
1C	Visioning Session with TCAA Board			1	0	10	10	0	0	21	\$	4,589	\$	100	\$	-	\$	4,689						
1C.1	Visioning Session (1 in person meeting)		R&A/AID	1	0	10	10	0	0	21	\$	4,589	\$	100			\$	4,689						
1D	Strengths and Opportunities Assessment			1	0	12	10	0	0	23	\$	5,109	\$	100	\$	-	\$	5,209						
1D.1	Strengths and Opportunities Assessment		R&A	0	0	8	0	0	0	18	\$	3,680					\$	3,680						
1D.2	Meetings (1 in person meeting, 1 virtual meeting)		R&A/AID	1	0	4	0	0	0	5	\$	1,429	\$	100			\$	1,529						
1E	Stakeholder and Public Involvement			2	0	126	0	24	76	228	\$	46,066	\$	2,950	\$	-	\$	49,016						
1E.1	Technical Advisory Panel (3 in person meetings)																							
1E.1.1	Prepare Briefing Materials		R&A	0	0	20	0	0	20	40	\$	7,600					\$	7,600						
1E.1.2	Attend and Moderate Technical Advisory Panel Briefings		R&A/AID	0	0	12	0	0	0	12	\$	3,120	\$	300			\$	3,420						
1E.2	Citizens Advisory Panel (3 in person meetings)																							
1E.2.1	Prepare Briefing Materials		R&A	0	0	20	0	0	24	44	\$	8,080					\$	8,080						
1E.2.2	Attend and Moderate Citizens Advisory Panel Briefings		R&A/AID	0	0	12	0	0	0	12	\$	3,120	\$	300			\$	3,420						
1E.3	Titusville-Cocoa Airport Authority Workshops (2 in person meetings)																							
1E.3.1	Prepare Workshop Materials		R&A/TQG	0	0	12	0	12	0	24	\$	4,824					\$	4,824						
1E.3.2	Conduct Workshops		R&A/AID	0	0	8	0	0	0	8	\$	2,080	\$	75			\$	2,155						
1E.4	Titusville-Cocoa Airport Authority Briefings (2 in person meetings)																							
1E.4.1	Prepare Briefing Materials		R&A	0	0	6	0	12	0	18	\$	3,264					\$	3,264						
1E.4.2	Attend Board Meetings and Conduct Briefing		R&A	0	0	6	0	0	0	6	\$	1,560	\$	75			\$	1,635						
1E.5	Public Workshops (2 in person meetings)																							
1E.5.1	Prepare Workshop Materials		R&A/TQG	0	0	24	0	0	32	56	\$	10,080					\$	10,080						
1E.5.2	Attend Public Workshops		R&A/AID	2	0	6	0	0	0	8	\$	2,338	\$	2,200			\$	4,538						
2	Aerial Surveying and Mapping			0	12	17	0	0	0	29	\$	8,380	\$	-	\$	-	\$	8,380						
2.1	Project Planning / FAA Airports-GIS Coordination / Field-Survey Consultation		MTZ/R&A	0	4	3	0	0	0	7	\$	2,100					\$	2,100						
2.2	Imagery Acquisition (Flight Mission)		MTZ	0	0	0	0	0	0	0	\$	-					\$	-						
2.3	Aero-Triangulation		MTZ	0	0	0	0	0	0	0	\$	-					\$	-						
2.4	Orthophoto Production		MTZ	0	0	0	0	0	0	0	\$	-					\$	-						
2.5	Planimetric/Topographic Mapping		MTZ/R&A	0	4	3	0	0	0	7	\$	2,100					\$	2,100						
2.6	Airspace Analysis/Obstruction Survey		MTZ/R&A	0	4	3	0	0	0	7	\$	2,100					\$	2,100						
2.7	Mapping Edit and GIS Formatting/FAA Compliance		MTZ	0	0	0	0	0	0	0	\$	-					\$	-						
2.8	Field-Survey Services																							
2.8.1	Establish Geodetic Control / Validate Existing PACs / SACs		B&P/R&A	0	0	4	0	0	0	4	\$	1,040					\$	1,040						
2.8.2	Runway Surveys		B&P/R&A	0	0	2	0	0	0	2	\$	520					\$	520						
2.8.3	NAVAID Surveys		B&P/R&A	0	0	2	0	0	0	2	\$	520					\$	520						
3A	Aviation Activity Forecasts			3	0	48	44	88	0	183	\$	33,183	\$	-	\$	-	\$	33,183						
3A.1	Analysis of Historical Activity Patterns		R&A	0	0	4	16	12	0	32	\$	5,304					\$	5,304						
3A.2	Develop Aviation Activity Forecasts		R&A	1	0	12	8	24	0	45	\$	8,197					\$	8,197						
3A.3	Identify Critical Aircraft		R&A	0	0	8	8	4	0	20	\$	3,928					\$	3,928						
3A.4	Deliverables																							
3A.4.1	Prepare Draft Working Paper		R&A	2	0	8	6	24	0	40	\$	7,226					\$	7,226						
3A.4.2	Prepare Final Working Paper		R&A	0	0	0	6	8	0	14	\$	2,096					\$	2,096						
3A.5	Meetings (4 virtual meetings)		R&A	0	0	16	0	16	0	32	\$	6,432					\$	6,432						
3B	Market Assessment/Land Use Planning			2	6	32	28	8	0	76	\$	16,694	\$	100	\$	-	\$	16,794						
3B.1	Highest and Best Use Assessment		R&A	2	6	24	16	8	0	56	\$	12,694					\$	12,694						
3B.2	Meetings (1 in person meeting, 1 virtual meeting)		R&A	0	0	8	12	0	0	20	\$	4,000	\$	100			\$	4,100						
4	Demand/Capacity Analysis and Airport Requirements			1	4	70	80	0	148	303	\$	50,469	\$	-	\$	-	\$	50,469						
4.1	Airfield																							

Space Coast Regional Airport (TIX)
Airport Master Plan Update
Labor/Fee Estimate Summary - Ricondo & Associates, Inc.

LEGEND

Highlighted tasks include elements that are applicable to the TIX, COI, and X21 Airport Master Plan Updates. The total costs for these tasks have been spread across the three Airport Master Plans. The hours and expenses on this Labor/Fee Estimate Summary do not reflect task totals, only the portion allocated to this Airport Master Plan.

BILLING RATE (SEE NOTE #1):															\$	389.00	\$	330.00	\$	260.00	\$	160.00	\$	142.00	\$	120.00
															LABOR ESTIMATE (HOURS)					FEE ESTIMATE (\$)						
			Responsibility	Officer	Director	Managing Consultant	Senior Consultant	Consultant	Technical Specialist	Total	Labor	Expenses	Sub - consultants Expenses	Total												
Task Number and Description																										
4.1.1	Airfield Demand/Capacity Assessment	R&A	0	2	8	16	0	16	42	\$	7,220			\$ 7,220												
4.1.2	Runway Length Requirements	R&A	0	2	4	8	0	8	22	\$	3,940			\$ 3,940												
4.1.3	Airport Requirements	R&A	0	0	6	8	0	24	38	\$	5,720			\$ 5,720												
4.2	General Aviation And Fixed Base Operator Facilities	R&A	0	0	4	8	0	32	44	\$	6,160			\$ 6,160												
4.3	Support Facilities	R&A	0	0	8	8	0	16	32	\$	5,280			\$ 5,280												
4.4	Landside Facilities	R&A	0	0	8	8	0	12	28	\$	4,800			\$ 4,800												
4.5	Prepare Draft Working Paper	R&A	1	0	24	24	0	32	81	\$	14,309			\$ 14,309												
4.6	Meetings (1 virtual meeting)	R&A	0	0	8	0	0	8	16	\$	3,040			\$ 3,040												
5	Formulate Alternatives		1	0	40	74	120	0	235	\$	39,669	\$	200	\$ - \$ 39,869												
5.1	Airfield Alternatives	R&A	0	0	4	8	16	0	28	\$	4,592			\$ 4,592												
5.2	Develop and Evaluate General Aviation Facility Concept Plans	R&A	0	0	4	8	16	0	28	\$	4,592			\$ 4,592												
5.3	Develop Support Facility Concept Plans	R&A	0	0	2	8	8	0	18	\$	2,936			\$ 2,936												
5.4	Develop Overall Airport Campus Concept Plans	R&A	0	0	4	8	16	0	28	\$	4,592			\$ 4,592												
5.5	Evaluate Alternatives/Concepts	R&A	0	0	6	10	16	0	32	\$	5,432			\$ 5,432												
5.6	Develop Rough Order of Magnitude Cost Estimates	AID/R&A	0	0	4	0	4	0	8	\$	1,608			\$ 1,608												
5.7	Prepare Draft Working Paper	R&A	1	0	8	32	36	0	77	\$	12,701			\$ 12,701												
5.8	Meetings (2 in person meetings)	R&A	0	0	8	0	8	0	16	\$	3,216	\$	200	\$ 3,416												
6	Environmental Overview		2	4	8	20	32	0	66	\$	11,922	\$	-	\$ - \$ 11,922												
6.1	Evaluation of Proposed Development	R&A	1	0	2	4	8	0	15	\$	2,685			\$ 2,685												
6.2	Airport Recycling, Reuse and Waste Reduction Plan	R&A	0	1	2	4	8	0	15	\$	2,626			\$ 2,626												
6.3	Prepare Draft Working Paper	R&A	1	1	4	8	8	0	22	\$	4,175			\$ 4,175												
6.4	Meetings (1 virtual meeting)	R&A	0	2	0	4	8	0	14	\$	2,436			\$ 2,436												
7	Capital Improvement Program		2	4	88	0	116	68	278	\$	49,610	\$	100	\$ - \$ 49,710												
7.1	Validation and Reprogramming of Existing Five-Year CIP	R&A	1	2	16	0	24	0	43	\$	8,617			\$ 8,617												
7.2	Coordinate Project Sequencing	R&A	0	0	8	0	12	8	28	\$	4,744			\$ 4,744												
7.3	Develop Capital Improvement Program and Funding Sources	R&A	0	2	16	0	24	12	54	\$	9,668			\$ 9,668												
7.4	Prepare Draft Project Summaries And Exhibits	R&A	0	0	20	0	24	40	84	\$	13,408			\$ 13,408												
7.5	Prepare Draft Working Paper	R&A	1	0	20	0	32	0	53	\$	10,133			\$ 10,133												
7.6	Meetings (1 in person meeting, 1 virtual meeting)	R&A	0	0	8	0	0	8	16	\$	3,040	\$	100	\$ 3,140												
8	Financial Plan		2	37	90	38	4	0	171	\$	43,036	\$	-	\$ - \$ 43,036												
8.1	Collect and Review Financial Data	R&A	0	4	16	8	0	0	28	\$	6,760			\$ 6,760												
8.2	Prepare Financial Plan																									
8.2.1	Pro-Forma Analysis	R&A	0	11	24	16	0	0	51	\$	12,430			\$ 12,430												
8.2.2	Sensitivity Analysis	R&A	0	14	32	12	0	0	58	\$	14,860			\$ 14,860												
8.3	Prepare Draft of Financial Plan	R&A	2	6	16	0	4	0	28	\$	7,486			\$ 7,486												
8.4	Meetings (1 virtual meeting)	R&A	0	2	2	2	0	6	12	\$	1,500			\$ 1,500												
9	Refine The Preferred Alternative		0	0	20	0	22	20	62	\$	10,724	\$	-	\$ - \$ 10,724												
9.1	Alternatives Refinement	R&A	0	0	18	0	20	20	58	\$	9,920			\$ 9,920												
9.2	Meetings (1 virtual meeting)	R&A	0	0	2	0	2	0	4	\$	804			\$ 804												
10	Airport Layout Plan Set		0	2	29	0	74	370	475	\$	63,108	\$	1,600	\$ - \$ 64,708												
10.1	Title Sheet	R&A	0	0	1	0	2	8	11	\$	1,504			\$ 1,504												
10.2	Airport Data Sheet	R&A	0	0	1	0	4	30	35	\$	4,428			\$ 4,428												
10.3	Existing Airport Layout	R&A	0	0	1	0	4	40	45	\$	5,628			\$ 5,628												
10.4	Airport Layout Plan	R&A	0	0	1	0	4	40	45	\$	5,628			\$ 5,628												
10.5	Airport Airspace Drawing	R&A	0	0	1	0	4	40	45	\$	5,628			\$ 5,628												
10.6	Inner Portion of the Approach Surface Drawings	R&A	0	0	1	0	4	40	45	\$	5,628			\$ 5,628												
10.7	Departure Surface Drawing	R&A	0	0	1	0	4	40	45	\$	5,628			\$ 5,628												
10.8	Existing Land Use Drawing	AID/R&A	0	0	1	0	2	24	27	\$	3,424			\$ 3,424												
10.9	Proposed Land Use Drawing	AID/R&A	0	0	1	0	2	24	27	\$	3,424			\$ 3,424												
10.10	Deliverables																									
10.10.1	Draft Airport Layout Plan Set	R&A	0	2	4	0	12	24	42	\$	6,284	\$	200	\$ 6,484												
10.10.2	Revise Draft Airport Layout Plan and Respond to Sponsor Comments	R&A	0	0	1	0	8	16	25	\$	3,316			\$ 3,316												
10.10.3	Prepare Checklists According to SOP 2.00	R&A	0	0	1	0	4	8	13	\$	1,788			\$ 1,788												
10.10.4	Revised Draft Airport Layout plan Set Submittal	R&A	0	0	1	0	4	8	13	\$	1,788	\$	300	\$ 2,088												
10.10.5	Revise Draft Airport Layout Plan Set and Respond to FAA and FDOT Comments	R&A	0	1	0	4	12	17	27	\$	2,268			\$ 2,268												
10.10.6	Prepare Final Airport Layout Plan Set	R&A	0	0	8	0	8	16	32	\$	5,136	\$	800	\$ 5,936												
10.11	Meetings (1 in person meeting)	R&A	0	0	4	0	4	8	8	\$	1,608	\$	300	\$ 1,908												
11	Exhibit 'A' Airport Property Inventory Map		0	0	4	0	0	10	14	\$	2,240	\$	-	\$ - \$ 2,240												
11.1	Title Work	AID	0	0	0	0	0	0	0	\$	-			\$ -												
11.2	Boundary Survey	AID/B&P	0	0	0	0	0	0	0	\$	-			\$ -												
11.3	Exhibit 'A' Airport Property Inventory Map	AID/B&P/R&A	0	0	2	0	0	10	12	\$	1,720			\$ 1,720												
11.4	Prepare Checklist According to SOP 3.00	AID	0	0	1	0	0	0	1	\$	260			\$ 260												
11.5	Meetings (6 virtual meetings)	AID/B&P/R&A	0	0	1	0	0	0	1	\$	260			\$ 260												
12	Documentation		4	0	38	64	28	98	232	\$	37,412	\$	6,500	\$ - \$ 43,912												
12.1	Develop PowerPoint Template	TQG	0	0	0	0	0	0	0	\$	-			\$ -												
12.2	Executive Summary																									
12.2.1	Prepare Executive Summary Brochure	R&A/TQG	1	0	8	24	12	24	69	\$	10,893	\$	1,000	\$ 11,893												

Space Coast Regional Airport (TIX)
 Airport Master Plan Update
 Labor/Fee Estimate Summary - Ricondo & Associates, Inc.

LEGEND

Highlighted tasks include elements that are applicable to the TIX, COI, and X21 Airport Master Plan Updates. The total costs for these tasks have been spread across the three Airport Master Plans. The hours and expenses on this Labor/Fee Estimate Summary do not reflect task totals, only the portion allocated to this Airport Master Plan.

BILLING RATE (SEE NOTE #1):													
		\$	389.00	\$	330.00	\$	260.00	\$	160.00	\$	142.00	\$	120.00
LABOR ESTIMATE (HOURS)										FEE ESTIMATE (\$)			
Task Number and Description	Responsibility	Officer	Director	Managing Consultant	Senior Consultant	Consultant	Technical Specialist	Total		Labor	Expenses	Sub - consultants Expenses	Total
12.2.2 Prepare Executive Summary Powerpoint	R&A	1	0	8	10	0	18	37	\$	6,229			\$ 6,229
12.3 Prepare Draft Airport Master Plan Update Report	R&A	1	0	8	10	16	16	51	\$	8,261	\$ 1,500		\$ 9,761
12.4 Respond to Sponsor, FAA, and FDOT Comments	R&A	0	0	8	10	0	8	26	\$	4,640			\$ 4,640
12.5 Prepare Final Airport Master Plan Update Report	R&A	1	0	6	10	0	32	49	\$	7,389	\$ 4,000		\$ 11,389
13 Project Administration and Coordination		0	0	42	12	28	0	82	\$	16,816	\$ -	\$ -	\$ 16,816
13.1 Grant Services	AID	0	0	0	0	0	0	0	\$	-			\$ -
13.2 Develop Monthly Status Reports	R&A	0	0	16	0	0	0	16	\$	4,160			\$ 4,160
13.3 Other Meetings (In Addition to those identified within the previous individual tasks)													
13.3.1 Kick-Off Meeting (1 in person meeting)	R&A/AID	0	0	8	0	8	0	16	\$	3,216			\$ 3,216
13.3.2 TCAA Staff Coordination Calls (12 virtual meetings)	R&A	0	0	12	0	12	0	24	\$	4,824			\$ 4,824
13.3.3 FAA Coordination Briefings (2 in person meetings)	R&A	0	0	4	8	8	0	20	\$	3,456			\$ 3,456
13.3.4 FDOT Coordination Briefing (1 virtual meeting)	R&A	0	0	2	4	0	0	6	\$	1,160			\$ 1,160
Grand Total		23	71	729	406	562	822	2,613	\$	465,321	\$ 11,750	\$ -	\$ 477,071

Note #1: Billing rates shown here are specific to the staffing plan and specific individuals proposed for this assignment and are lower than the standard hourly rate for each of these labor categories. As such, these rates reflect built up rates utilizing CY 2020 audited overhead rate and a varying profit margin not exceeding 10 percent.

APPENDIX B AMERICAN INFRASTRUCTURE DEVELOPMENT, INC. FEE PROPOSAL

Space Coast Regional Airport (TIX)

Airport Master Plan Update

Labor/Fee Estimate Summary - American Infrastructure Development, Inc.

LEGEND

Highlighted tasks include elements that are applicable to the TIX, COI, and X21 Airport Master Plan Updates. The total costs for these tasks have been spread across the three Airport Master Plans. The hours and expenses on this Labor/Fee Estimate Summary do not reflect task totals, only the portion allocated to this Airport Master Plan.

BILLING RATE: \$ 186.00 \$ 162.00 \$ 133.00 \$ 95.00 \$ 79.00

		LABOR ESTIMATE (HOURS)						FEE ESTIMATE (\$)				
Task Number and Description		Responsibility	Project Manager	Senior Engineer	Planner	Designer	Projects Coordinator	Total	Labor	Expenses	Sub - consultants Expenses	Total
1A	Inventory of Existing Conditions		28	28	204	124	8	392	\$ 49,288	\$ 1,200	\$ -	\$ 50,488
1A.1	Background, Airport History, and Aeronautical Role	AID/R&A	0	0	8	6	0	14	\$ 1,634			\$ 1,634
1A.2	Inventory of Airport Physical Facilities											
1A.2.1	Airfield	AID/R&A	2	0	16	16	0	34	\$ 4,020			\$ 4,020
1A.2.2	Fixed Base Operator/General Aviation Facilities	AID/R&A	4	0	20	12	0	36	\$ 4,544			\$ 4,544
1A.2.3	Support Facilities	AID/R&A	4	0	20	12	0	36	\$ 4,544			\$ 4,544
1A.2.4	Non-Aeronautical Facilities	AID/R&A	4	0	18	10	0	32	\$ 4,088			\$ 4,088
1A.2.5	Facilities Condition and Age Estimation	AID/R&A	0	0	16	0	0	16	\$ 2,128			\$ 2,128
1A.3	Airspace Data	AID/R&A	0	0	10	0	0	10	\$ 1,330			\$ 1,330
1A.4	Meteorological Conditions	AID/R&A	0	0	8	16	0	24	\$ 2,584			\$ 2,584
1A.5	Land Use											
1A.5.1	On-Airport	AID/R&A	2	0	16	8	0	26	\$ 3,260			\$ 3,260
1A.5.2	Off-Airport	AID/R&A	0	0	8	8	0	16	\$ 1,824			\$ 1,824
1A.6	Utilities	AID/R&A	4	24	16	16	0	60	\$ 8,280	\$ 800		\$ 9,080
1A.10	Prepare Draft Working Paper	AID/R&A	8	4	40	20	8	80	\$ 9,988			\$ 9,988
1A.11	Meetings (1 in person meeting)	AID/R&A	0	0	8	0	0	8	\$ 1,064	\$ 400		\$ 1,464
1C	Visioning Session with TCAA Board		1	0	0	0	0	1	\$ 186	\$ 90	\$ -	\$ 276
1C.1	Visioning Session (1 in person meeting)	R&A/AID	1	0	0	0	0	1	\$ 186	\$ 90		\$ 276
1D	Strengths and Opportunities Assessment		1	0	0	0	0	1	\$ 186	\$ 90	\$ -	\$ 276
1D.2	Meetings (1 in person meeting, 1 virtual meeting)	R&A/AID	1	0	0	0	0	1	\$ 186	\$ 90		\$ 276
1E	Stakeholder and Public Involvement		8	0	0	0	0	8	\$ 1,488	\$ 540	\$ -	\$ 2,028
1E.1	Technical Advisory Panel (3 in person meetings)											
1E.1.2	Attend and Moderate Technical Advisory Panel Briefings	R&A/AID	4	0	0	0	0	4	\$ 744	\$ 270		\$ 1,014
1E.2	Citizens Advisory Panel (3 in person meetings)											
1E.2.2	Attend and Moderate Citizens Advisory Panel Briefings	R&A/AID	4	0	0	0	0	4	\$ 744	\$ 270		\$ 1,014
1E.3	Titusville-Cocoa Airport Authority Workshops (2 in person meetings)											
1E.3.2	Conduct Workshops	R&A/AID	0	0	0	0	0	0	\$ -	\$ -		\$ -
1E.5	Public Workshops (2 in person meetings)											
1E.5.2	Attend Public Workshops	R&A/AID	0	0	0	0	0	0	\$ -	\$ -		\$ -
5	Formulate Alternatives		4	32	60	8	4	108	\$ 14,984	\$ -	\$ -	\$ 14,984
5.6	Develop Rough Order of Magnitude Cost Estimates	AID/R&A	4	32	60	8	4	108	\$ 14,984			\$ 14,984
10	Airport Layout Plan Set		0	0	0	0	0	0	\$ -	\$ -	\$ -	\$ -
10.8	Existing Land Use Drawing	AID/R&A	0	0	0	0	0	0	\$ -			\$ -
10.9	Proposed Land Use Drawing	AID/R&A	0	0	0	0	0	0	\$ -			\$ -
11	Exhibit 'A' Airport Property Inventory Map		2	0	56	40	0	98	\$ 11,620	\$ -	\$ 18,150	\$ 29,770
11.1	Title Work	AID	0	0	6	0	0	6	\$ 798		\$ 18,150	\$ 18,948
11.2	Boundary Survey	AID/B&P	0	0	8	0	0	8	\$ 1,064			\$ 1,064
11.3	Exhibit 'A' Airport Property Inventory Map	AID/B&P/R&A	2	0	32	40	0	74	\$ 8,428			\$ 8,428
11.4	Prepare Checklist According to SOP 3.00	AID	0	0	4	0	0	4	\$ 532			\$ 532
11.5	Meetings (6 virtual meetings)	AID/B&P/R&A	0	0	6	0	0	6	\$ 798			\$ 798
13	Project Administration and Coordination		30	0	0	0	148	178	\$ 17,272	\$ -	\$ -	\$ 17,272
13.1	Grant Services	AID	24	0	0	0	148	172	\$ 16,156			\$ 16,156
13.3	Other Meetings (In Addition to those identified within the previous individual tasks)											
13.3.1	Kick-Off Meeting (1 in person meeting)	R&A/AID	6	0	0	0	0	6	\$ 1,116			\$ 1,116
Grand Total			74	60	320	172	160	786	\$ 95,024	\$ 1,920	\$ 18,150	\$ 115,094

APPENDIX C BROWN & PHILLIPS, INC. FEE PROPOSAL

Space Coast Regional Airport (TIX)
 Airport Master Plan Update
 Labor/Fee Estimate Summary - Brown & Phillips, Inc.

See Attached Proposal for Additional Details

BILLING RATE: \$ 134.00 \$ 135.00 \$ 83.00 \$ 83.00

			LABOR ESTIMATE (HOURS)					FEE ESTIMATE (\$)				
Task Number and Description			Responsibility	PLS	2-Man Crew	CAD Technician	Survey Technician	Total	Labor	Expenses	Sub - consultants Expenses	Total
2	Aerial Surveying and Mapping			29	142	20	89	280	\$ 32,103	\$ 3,240	\$ -	\$ 35,343
	2.8	Field-Survey Services										
	2.8.1	Establish Geodetic Control / Validate Existing PACs / SACs	B&P/R&A	15	82	0	46	143	\$ 16,898	\$ 3,240		\$ 20,138
	2.8.2	Runway Surveys	B&P/R&A	13	50	20	37	120	\$ 13,223			\$ 13,223
	2.8.3	NAVAID Surveys	B&P/R&A	1	10	0	6	17	\$ 1,982			\$ 1,982
11	Exhibit 'A' Airport Property Inventory Map			30	40	10	130	210	\$ 21,040	\$ 972	\$ -	\$ 22,012
	11.2	Boundary Survey	AID/B&P	4	40	0	32	76	\$ 8,592	\$ 972		\$ 9,564
	11.3	Exhibit 'A' Airport Property Inventory Map	AID/B&P/R&A	20	0	10	96	126	\$ 11,478			\$ 11,478
	11.5	Meetings (6 virtual meetings)	AID/B&P/R&A	6	0	0	2	8	\$ 970			\$ 970
Grand Total				59	182	30	219	490	\$ 53,143	\$ 4,212	\$ -	\$ 57,355

May 5, 2022

Ms. Timeka Carter
American Infrastructure Development, Inc.
1645 Palm Beach Lakes Boulevard, Suite 1200
West Palm Beach, FL 33401

**Re: Titusville-Cocoa Airport Authority (TCAA) Master Plan Planning Services
Space Coast Regional Airport (TIX) - Ground Control Survey and Airport Layout Plan**

Dear Timeka:

Thank you for the opportunity to provide you with the following services for the subject site. This proposal is based on documentation and information provided by your office. The scope of services is as follows:

SCOPE OF SERVICES

I. TASK 8 FIELD SURVEY SERVICES – GROUND CONTROL SURVEY

Utilizing information from Martinez Geospatial, Inc. (MTZ), we will complete onsite ground control surveys to fulfill the data-collection requirements for updating a paper Airport Layout Plan (ALP). We will collect field survey data in accordance with FAA AC Circulars 150/5300-16B (16B), 150/5300-17C (17C), and 150/5300-18B (18B), as applicable and will include the following from MTZ Scope and Fee Proposal:

Establish Geodetic Control / Validate existing PACS/SACS (Field-Survey)

There are currently one PACS monument and three SACS monument published in the NGS database for the airport. Brown & Phillips will validate/utilize these monuments to serve as the project tie to the NSRS. If the existing PACS/SACS monuments are determined to be damaged or the validation is unsuccessful, Brown & Phillips will establish temporary geodetic control points, as required, in accordance with AC-150/5300-16B. Geodetic data will be tied to the NSRS using the latest published adjustment (2011).

Following are the specific PACS & SACS locations to be recovered:

Station Type	Designation	PID	Horizontal Datum	Vertical Datum	GEOID
PACS	TIX ARP	AA4469	NAD83(2011)	NAVD88	GEOID18
SACS	TIX AP STA A	AA4470	NAD83(2011)	NAVD88	GEOID18
SACS	TIX AP STA B	AA4471	NAD83(2011)	NAVD88	GEOID18

Survey Imagery Photo Control (Field-Survey)

Photo-identifiable control points will be selected/set and surveyed for use as ground control for aero-triangulation of the new aerial imagery. Imagery control points will be spread throughout the aerial imagery project-area in a geometric pattern conducive to favorable aero triangulation results. Each imagery control point will be surveyed using RTK survey methods. Imagery Control will be surveyed (properly tied to NSRS) and documented in accordance with AC-150/5300-17C and FAA Airports-GIS requirements. Ground Control data and documentation will be submitted to MTZ for submittal to FAA Airports-GIS along with the Aerial Photography Acquisition Report. It is anticipated that approximately **28** imagery control points will be required. Per FAA requirements, in addition to the imagery control points, an additional **5** Independent Checkpoints will be surveyed and processed through NGS OPUS.

Runway Surveys (Field-Survey)

Brown & Phillips will accomplish field-survey of both runways at TIX (9/27 & 18/36); survey tasks will include survey of runway-endpoints, displaced thresholds (RWY 18) and runway-profiles. For each runway-endpoint/threshold a monument will be set (or recovered), surveyed, and documented in accordance with AC-150/5300-18B. Runway-centerline and 10-foot-offset profiles will be surveyed utilizing mobile-RTK methodology; final profile data will be extracted at 10-foot stations for FAA Airports-GIS submission.

NAVAID Surveys (Field-Survey)

Brown & Phillips will accomplish field-survey of visual and electronic NAVAIDs serving the TIX airport. Each NAVAID will be surveyed and documented in accordance with AC-150/5300-18B. NAVAID survey data will be properly formatted by MTZ and reported in the FAA Airports-GIS deliverable and the CAD base-map deliverable. The NAVAID survey will include the following:

Airport Beacon	PAPI 9	PAPI 27
REILs 9	REILs 27	PAPI 18
PAPI 36	REILs 18	MALSR 36
Localizer 36	Glideslope 36	ASOS
Windsocks		

TASK 8 DELIVERABLES

As part of **TIX Master Plan Update**, Brown & Phillips will provide the following:

FIELD SURVEY SERVICES

- Topographic survey of runway profiles
- Drawing showing control found and utilized for the project
- FAA required field forms and photographs as needed

TASK 8 ITEMS TO BE PROVIDED BY AMERICAN INFRASTRUCTURE DEVELOPMENT (AID)

The following items will be provided to Brown & Phillips by AID:

- Any pertinent maps and plans to aid in this scope of work (PDF and CAD if possible)
- Rectified aerials (if available) of the airport for use as an underlay on the survey drawings
- MTZ will be responsible for coordinating and submitting AGIS deliverables to FAA

II. TASK 11 EXHIBIT 'A' AIRPORT PROPERTY INVENTORY MAP

Task 11.2 Boundary Survey

Brown & Phillips will perform a Boundary Survey of up to 33 parcels combined to form approximately 1,911± acres assumed to represent property owned by the TCAA, as depicted on the Airport Property Map dated August 2005. Additionally, a maximum of twelve (12) easements are assumed to be owned by the TCAA. Title reports produced as part of subtask 11.2 will be reviewed to determine encumbrances reflected therein that should be reflected on the boundary survey of each property. Individual small parcels of land originally acquired for noise purposes will not be individually surveyed as part of this project. Property acquired since the August 2005 map will be added to the property inventory.

Once the field data collection is completed and all field QA/QC checks have been made, all raw data files will be processed and subsequently imported into AutoCAD software for the creation of the final project drawings and reports. The final Boundary Survey deliverable will be compiled from all field data collected, a review of all title searches and documentation amassed from public records sources for each individual parcel boundary survey.

The field location of each parcel's boundary monumentation will be compared to the legal description of each parcel and the final location of each parcel boundary will be determined. No improvement locations will be obtained. All work will be performed in accordance with the standards of practice outlined in Chapter 5J-17 of the Florida Administrative Code, pursuant to Section 472.027, Florida Statutes.

Task 11.3 Exhibit 'A' Airport Property Inventory Map

This subtask includes the development of an Exhibit 'A' Airport Property Inventory Map. The deliverable will be prepared at a scale equal to that of the ALP and will depict the existing airport property boundary as well as proposed acquisition areas. The drawing will indicate in matrix form how, when, and from whom the various parcels were acquired. The data table will include (if available): number or letter and area of each parcel or easement, date property was acquired or disposed (recorded date), recorded document number (book/page), encumbrance (if applicable), Brevard County Tax ID, Federal Aid project number under which the property acquisition was reimbursed, type of acquisition (i.e. AIP-noise, AIP entitlement, surplus property, local purchase, local donation, condemnation, other), grantor of property, and acreage. The Exhibit 'A' Airport Property Inventory Map will also document existing easements within the Airport boundary.

Carter
May 5, 2022
Page 4

The updating of the property map will conform with the guidelines discussed in FAA's Standard Operating Procedure (SOP 3.00) for FAA Review of Exhibit 'A' Airport property Inventory Maps (dated October 1, 2013). FAA SOP 2.00 also provides the same Airport Property Inventory Map/Exhibit A guidelines. To support the submittal of this updated planning product, the Ricondo Team will also review, complete, and submit the Exhibit 'A' Review Checklist that is provided in the FAA SOP 3.00.

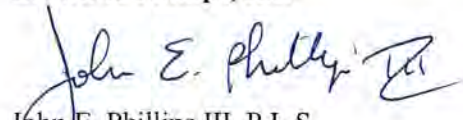
Task 11.6 Meetings

Brown & Phillips will attend up to six (6) virtual meetings as a part of this project.

III. CLOSURE

A drawing will be produced which will show all the features located. Horizontal & vertical accuracy will reflect conformance to FGDC Geospatial Positioning Accuracy Standards. The survey will be performed at two tenths of a foot contour interval and the final drawings will be provided, signed & sealed hard copy plans, one (1) electronic file in AutoCAD format and one (1) copy of survey field notes and calculations. Any additional work will be done on an hourly basis as approved by you. We will perform the scope of services for a **fee of \$57,355.00** (see Attachment 'A' for an hourly breakdown). Please do not hesitate to call me with any questions you might have regarding this proposal. We look forward to working with you on this project.

Brown & Phillips, Inc.


John E. Phillips III, P.L.S.
Principal

Attachments

JEP/mb

This Proposal accepted this ____ day of ____, 2022

By: _____
American Infrastructure Development

Print Name: _____

Title: _____

ATTACHMENT 'A' (1 OF 2)

 TCAA Master Plan Planning Services
 Space Coast Regional Airport (TIX)

Type of Survey: Ground Control & Topographic

Size: 28 ID's, 2 Runways

Date: May 5, 2022

TASK 2.8 - Field Surveying Services	SURVEY CREW	CADD TECH	SURVEY TECH	PLS	COMMENTS
Task 2.8.1 Establish Geodetic Control / Validate Existing PACs / SACs					
Planning/Control Identification			20	8	Reconnaissance, planning and set-up
Find and Establish Control	30		12	4	Image control checkpoints & recon.
Collection of NAVAIDS PACS/SACS	12		4	1	Airport geodetic control validation and prepare reports
Photo ID's	40		10	2	Locate photo ID points (28± points) 5 independent checkpoints
Total Hours:	82	0	46	15	
Rate/Hour	\$135.00	\$83.00	\$83.00	\$134.00	
Subtotal:	\$11,070.00	\$0.00	\$3,818.00	\$2,010.00	
Total Labor Cost:					\$16,898.00

TASK 2.8 - Field Surveying Services	SURVEY CREW	CADD TECH	SURVEY TECH	PLS	COMMENTS
Task 2.8.2 Runway Surveys					
Collect Runway Ends and displaced thresholds (RWY 18)	10		3	1	Collect horizontal information for both runways (9/27 & 18/36)
Vertical Project Network Control	4		1		Onsite control for profile - check published vertical
Vertical Profile of Runway	20		4		Runway centerline and 10-foot-offset profiles
Collect signage and markings not collected from imagery	16		4	2	
Prepare Deliverables		20	25	10	Prepare reports, compile data, prepare drawings
Total Hours:	50	20	37	13	
Rate/Hour	\$135.00	\$83.00	\$83.00	\$134.00	
Subtotal:	\$6,750.00	\$1,660.00	\$3,071.00	\$1,742.00	
Total Labor Cost:					\$13,223.00

ATTACHMENT 'A' (2 OF 2)

 TCAA Master Plan Planning Services
 Space Coast Regional Airport (TIX)

TASK 2.8 - Field Surveying Services	SURVEY CREW	CADD TECH	SURVEY TECH	PLS	COMMENTS
Task 2.8.3 NAVAID Surveys					
Survey visual and electronic NAVAIDs	10		1		Survey and document
Prepare Deliverables			5	1	Prepare reports, compile data, prepare drawings
Total Hours:	10	0	6	1	
Rate/Hour	\$135.00	\$83.00	\$83.00	\$134.00	
Subtotal:	\$1,350.00	\$0.00	\$498.00	\$134.00	
Total Labor Cost:					\$1,982.00

Other Direct Costs:

	<u>quantity</u>	<u>unit</u>	<u>cost/unit</u>	<u>total</u>
Per Diem meals for 2	10	days	\$132.00	\$1,320.00
Per Diem lodging for 2	10	days	\$192.00	\$1,920.00
Other				
Total Other Direct Costs:				\$3,240.00

TOTAL PRICE FOR TASK 2:
\$35,343.00

TASK - 11 Exhibit 'A' Airport Property Inventory Map	SURVEY CREW	CADD TECH	SURVEY TECH	PLS	COMMENTS
Boundary Survey	40		32	4	Up to 33 parcels - 1,911± acres
Exhibit 'A' Airport Property Inventory Map		8	80	16	
Meetings (6 virtual meetings)			2	6	
Address comments		2	16	4	
Total Hours:	40	10	130	30	
Rate/Hour	\$135.00	\$83.00	\$83.00	\$134.00	
Subtotal:	\$5,400.00	\$830.00	\$10,790.00	\$4,020.00	
Total Labor Cost:					\$21,040.00

Other Direct Costs:

	<u>quantity</u>	<u>unit</u>	<u>cost/unit</u>	<u>total</u>
Per Diem meals for 2	3	days	\$132.00	\$396.00
Per Diem lodging for 2	3	days	\$192.00	\$576.00
Other				
Total Other Direct Costs:				\$972.00

TOTAL PRICE FOR TASK 11:
\$22,012.00
GRAND TOTAL:
\$57,355.00

APPENDIX D MARTINEZ GEOSPATIAL FEE PROPOSAL

Space Coast Regional Airport (TIX)
 Airport Master Plan Update
 Labor/Fee Estimate Summary - Martinez Geospatial, Inc.

See Attached Proposal for Additional Details

BILLING RATE: \$ - \$ - \$ -

		LABOR ESTIMATE (HOURS)				FEE ESTIMATE (\$)			
Task Number and Description	Responsibility	Project Manager	Photogrammetrist	CAD Technician	Total	Labor	Expenses	Sub - consultants Expenses	Total
2 Aerial Surveying and Mapping		0	0	0	0	\$ -	\$ -	\$ -	\$ 110,594.53
2.1 Project Planning / FAA Airports-GIS Coordination / Field-Survey Consultation	MTZ/R&A	0	0	0	0	\$ -			\$ 11,046.73
2.2 Imagery Acquisition (Flight Mission)	MTZ	0	0	0	0	\$ -			\$ 4,000.00
2.3 Aero-Triangulation	MTZ	0	0	0	0	\$ -			\$ 5,573.08
2.4 Orthophoto Production	MTZ	0	0	0	0	\$ -			\$ 10,001.50
2.5 Planimetric/Topographic Mapping	MTZ/R&A	0	0	0	0	\$ -			\$ 47,472.15
2.6 Airspace Analysis/Obstruction Survey	MTZ/R&A	0	0	0	0	\$ -			\$ 19,662.76
2.7 Mapping Edit and GIS Formatting/FAA Compliance	MTZ	0	0	0	0	\$ -			\$ 12,838.31
Grand Total		0	0	0	0	\$ -	\$ -	\$ -	\$ 110,594.53



A GEOSPATIAL SERVICE PROVIDER

Scope and Fee Proposal

Photogrammetry & Airports-GIS Services

Space Coast Regional Airport (TIX)

05/05/2022

2915 Waters Road Suite 100 Eagan, Minnesota 55121

Tel: 651-686-8424 • www.mtzgeo.com

PROJECT SUMMARY

CLIENT	Ricondo
CLIENT CONTACT	Brad Weston
CLIENT ADDRESS	200 E Robinson Street, Suite 300 Orlando, FL 32801
PROJECT LOCATION	Space Coast Regional Airport (TIX)

Martinez Geospatial, Inc. (MTZ) will provide **Ricondo** with Photogrammetry and Airports-GIS services in support of a **Master Plan/Airport Layout Plan** at **Space Coast Regional Airport (TIX)**.

This scope includes tasks required to comply with FAA Airports-GIS program standards. All survey and photogrammetry work will be accomplished in accordance with the following Advisory Circulars:

AC-150/5300-16B (16B)

AC-150/5300-17C (17C)

AC-150/5300-18B (18B)

The FAA Airports-GIS objective for this project is to collect and submit *Safety-Critical* data for the airport. Furthermore, base-mapping (planimetric & topographic data) collected in support of the ALP will be formatted and submitted to FAA Airports-GIS. Specifically, acquisition of data will include an Obstruction Survey/Airport Airspace Analysis, NAVAID inventory & survey, Runway Ends & Profiles survey, and collection (through remote-sensing) of planimetric & topographic data.

MTZ will fulfill the data collection, formatting, and delivery requirements of the FAA Airports-GIS program. In general, MTZ's approach to fulfilling the GIS requirements will be accomplishing those required tasks as outlined in **Table 2-1 (Survey Requirements Matrix)** of **18B, Column "Airport Layout Plan."**

PROJECT SPECIFICATIONS

STATE	FLORIDA
COUNTY	BREVARD
PROJECT TYPE	AVIATION (AIRPORTS-GIS INCLUDED)
COORDINATE SYSTEM	FLORIDA STATE PLANE – EAST ZONE
HORIZONTAL DATUM	NAD83
VERTICAL DATUM	NAVD88 (GEOID18)
FIELD-SURVEY PROVIDED BY	BROWN & PHILLIPS, INC.
MAPPING SCALE	1"=100' & 2' CONTOURS
MAPPING FORMATS REQUIRED	STANDARD CAD w/ DTM and AIRPORTS-GIS
ORTHO RES & PHOTO FORMAT	0.5' GSD, TIF & SID FORMAT

PROJECT AREA DEFINITION

The total project area consists of three components:

AREA A	Planimetric & Topographic Mapping Limit - This area defines the limit for the compilation of planimetric & topographic base-mapping. (approximately 2,482 acres)
AREA B	Part 77/OCS Airspace Analysis Limits - Horizontal Limits of the applicable Obstruction Identification Surfaces (OIS) as defined by FAR Part 77 and AC-150/5300-13B.
AREA C	Airports-GIS Airspace Analysis Limits - Horizontal Limits of the applicable Obstruction Identification Surfaces (OIS) as defined in AC-150/5300-18B.

PROJECT TASKS

Project Planning/Project Management/FAA Airports-GIS Coordination/Field-Survey Coordination

MTZ will assist Ricondo to develop, submit, and gain approval of the "Statement of Work" for the project through the ADO and FAA Airports-GIS. MTZ will assemble, submit, and gain approval of the AP Acquisition Report through FAA Airports-GIS. MTZ will also coordinate with the field-surveyor to ensure all documentation required by AGIS, related to field-survey, is completed correctly. MTZ will also be available to assist/consult the surveyor in interpretation and application of FAA requirements to field-survey work.

Aerial Imagery Acquisition

New color aerial imagery will be captured for all areas outlined in the **PROJECT AREA DEFINITION** section of this scope utilizing a digital photogrammetric camera. The aerial imagery acquisition flight mission will be executed in accordance with all guidelines and specifications within FAA AC 150/5300-17C.

The aerial imagery acquisition flight mission will consist of a single "block" of imagery, as specified below:

IMAGERY RESOLUTION	PURPOSE/USE
10cm	The coverage limit for this imagery is the horizontal extents of AREA A, AREA B & AREA C . This imagery will be utilized for all photogrammetric data collection, including planimetric/topographic mapping and obstruction surveys/airspace analysis. Ortho-imagery will also be generated for this area at a resolution of 0.50' GSD.

Upon completion of the flight mission, the imagery will be reviewed through in-house Quality Assurance procedures for photogrammetric acceptability and compliance with AC 150/5300-17C requirements.

Establish Geodetic Control / Validate existing PACS/SACS (Field-Survey, Brown & Phillips)

There are currently one PACS monument and three SACS monument published in the NGS database for the airport. Surveyors will validate/utilize these monuments to serve as the project tie to the NSRS. If the existing PACS/SACS monuments are determined to be damaged or the validation is unsuccessful the surveyors will establish temporary geodetic control points, as required. Geodetic data will be tied to the NSRS using the latest published adjustment (2011).

Following are the specific PACS & SACS locations to be recovered:

Station Type	Designation	PID	Horizontal Datum	Vertical Datum	GEOID
PACS	TIX ARP	AA4469	NAD83(2011)	NAVD88	GEOID18
SACS	TIX AP STA A	AA4470	NAD83(2011)	NAVD88	GEOID18
SACS	TIX AP STA B	AA4471	NAD83(2011)	NAVD88	GEOID18

Survey Imagery Photo Control (Field-Survey, Brown & Phillips)

Photo-identifiable control points will be selected/set and surveyed for use as ground control for aero-triangulation of the new aerial imagery. Imagery control points will be spread throughout the aerial imagery project-area in a geometric pattern conducive to favorable aerotriangulation results. Each imagery control point will be surveyed using RTK survey methods. Imagery Control will be surveyed (properly tied to NSRS) and documented in accordance with AC-150/5300-17C and FAA Airports-GIS requirements. Ground Control data and documentation will be submitted to FAA Airports-GIS along with the Aerial Photography Acquisition Report. It is anticipated that **28** imagery control points will be required. Per FAA requirements, in addition to the imagery control points, an additional **5** Independent Checkpoints will be surveyed and processed through NGS OPUS.

Aero Triangulation

The newly acquired digital aerial imagery will be imported onto a digital photogrammetric workstation where it will be oriented with field-surveyed ground control. This procedure will establish both horizontal and vertical control for orienting individual photogrammetric models. This orientation will be accomplished using Soft Copy Aerial Triangulation methods.

Create Digital Ortho Imagery

Digital orthophotos will be produced to meet the needs of Ricondo and the Airport as well as to comply with the requirements of the FAA Airports-GIS program and AC 150/5300-17C. One set of orthophotos will be produced. Orthophotos will cover the following defined areas and meet the following specifications:

RESOLUTION	COVERAGE LIMIT
0.50' GSD	AREA C (see attached exhibit)

Runway Surveys (Field-Survey, Brown & Phillips)

Field Surveyors will accomplish survey of both runways at TIX (9/27 & 18/36); survey tasks will include survey of runway-end-points, displaced thresholds (RWY 18) and runway-profiles. For each runway-end-point/threshold a monument will be set, surveyed, and documented in accordance with AC-150/5300-18B. Runway-centerline and 10-foot-offset profiles will be surveyed utilizing mobile-RTK methodology; final profile data will be extracted at 10-foot stations for FAA Airports-GIS submission.

Runway survey data will be utilized for the Obstruction Surveys/Airport Airspace Analysis task. Furthermore, MTZ will indentify Airport Reference Point, Airport Elevation, High & Low Elevations of each Runway, and Touchdown Zone Elevations for each runway utilizing the newly surveyed Runway Data. Runway survey data will also be properly formatted by MTZ and reported in both the FAA Airports-GIS deliverable and the CAD base-map deliverable.

NAVAID Surveys (Field-Survey, Brown & Phillips)

Surveyors will accomplish field-survey of visual and electronic NAVAIDs serving the TIX airport. Each NAVAID will be surveyed and documented in accordance with AC-150/5300-18B. NAVAID survey data will be properly formatted by MTZ and reported in both the FAA Airports-GIS deliverable and the CAD base-map deliverable. The NAVAID Survey will include the following:

<i>Airport Beacon</i>	<i>PAPI 9</i>	<i>PAPI 27</i>
<i>REILs 9</i>	<i>REILs 27</i>	<i>PAPI 18</i>
<i>PAPI 36</i>	<i>REILs 18</i>	<i>MALSR 36</i>
<i>Localizer 36</i>	<i>Glideslope 36</i>	<i>ASOS</i>
<i>Windsocks</i>		

Airport Airspace Analysis/Obstruction Surveys

18B/AGIS

Airport Airspace Analysis data collection will be completed for both runways at TIX. Obstacle data collection/submission will be accomplished in accordance with all relevant sections of AC-150/5300-18B, Section 2.7.1 and the FAA Airport Airspace Analysis Checklist. Airport Airspace Analysis will be accomplished to the following standards:

RUNWAY	AGIS ANALYSIS TYPE
9/27	Runways-With-Vertical-Guidance
18/36	Runways-With-Vertical-Guidance

Formatting of final reported 18B/AGIS obstacles will adhere to the specifications of AC 150/5300-18B, Chapter 5 *Airport Data Features*.

Part 77/Obstacle Clearance Surface (OCS)

An FAR Part 77 and an OCS Obstruction Survey will be performed for all runway ends. Utilizing the digital 3D stereo imagery, the prescribed Part 77 & OCS Obstruction-Identification-Surfaces will be examined and analyzed to identify natural and manmade objects penetrating the surfaces. OCS Surfaces will be based on the requirements of AC-150/5300-13B (Tables 3-2, 3-3, 3-4, and 3-5)

The Part 77 Obstruction Survey will meet the following specifications:

RUNWAY	PART 77 ANALYSIS TYPE
9	Non-Precision-Instrument-C (NPI-C)
27	Visual-Other-Than-Utility (BV)
18	Non-Precision-Instrument-C (NPI-C)
36	Precision-Instrument-Runway (PIR)*

* - PIR analysis will be carried out to approximately 20,000 feet from runway end, the limits of AGIS imagery

The OCS Obstruction Survey will meet the following specifications (OCS Numbers are taken from AC-13B, Tables 3-2, 3-3, 3-4. and 3-5).

RUNWAY	OCS ANALYSIS TYPE
9	OCS 5 ($\geq 3/4sm$ Visibility Minimums, Visual Approach Segment)
9	OCS 6 (Vertical Guidance Surface)
9	OCS 7 (Departure Surface)
27	OCS 3 (Visual, Large Aircraft)
27	OCS 7 (Departure Surface)
18	OCS 5 ($\geq 3/4sm$ Visibility Minimums, Visual Approach Segment)
18	OCS 6 (Vertical Guidance Surface)
18	OCS 7 (Departure Surface)
36	OCS 5 ($< 3/4sm$ Visibility Minimums)
36	OCS 6 (Vertical Guidance Surface)
36	OCS 7 (Departure Surface)

Part 77/OCS Collection Criteria

The obstruction-identification-surfaces, defined in the previous section, will be digitally referenced with the 3D Stereo Imagery. Utilizing the 3D imagery, trained technicians will visually examine all surfaces and collect X-Y-Z point data for objects meeting collection criteria. Collected data will then be mathematically analyzed against the surfaces using custom processes to produce a final dataset. Multiple Quality-Assurance processes are performed for obstruction data through the project life cycle to ensure accuracy and completeness. Data will be collected to fulfill the following criteria:

- 1) A single X-Y-Z point will be collected / analyzed for any manmade or natural object penetrating a surface. The point will be placed on the highest point of the object. The X-Y location will correspond to the horizontal position of the highest portion of the object, not necessarily the geometric center or middle of the object.
- 2) Occasionally with Obstruction Surveys, large group of trees or terrain (obstruction area) are found to penetrate a surface and it is not feasible or possible to collect each individual penetration. In these cases, the obstruction area will be outlined with a bounding polygon in order to represent the horizontal extents of the area. A grid will then be overlaid on the obstructing area. Within each grid sector, the highest object will be collected. Within the primary surface, the transitional surface, and within the first 5,000 feet of the approach surface, 100-foot grid spacing will be used. Within 10,000 feet of the approach surface, but outside 5,000 feet, 200-foot grid spacing will be used. 200-foot grid spacing will also be used within the horizontal surface. Outside of 10,000 feet of the approach surface and within the conical surface, 500-foot grid spacing will be used.

Supplemental Obstacle Collection

Within the first 5,000 feet of the Departure Surface (also applied to the visual runways), MTZ will collect significant manmade and natural objects with no exemptions based on negative penetration value. For manmade objects, all buildings, utility poles, antennas, towers, and prominent objects will be collected (small objects, such as mailboxes, posts, and utility boxes will be ignored). For roadways (including highways) and railroads, the proper Part 77 offset will be applied according to the type of vehicular traverse way (official Vehicle Service Roads will be included and NAVAID Service Roads will be excluded). For vegetation, significant singular trees will be collected to the extent possible/feasible. In

large areas of dense vegetation, a bounding polygon will be drawn to show the extents of the area. A 100-foot grid will be applied and the highest vegetation point within each grid-sector will be collected.

Deliverable Format for Part 77 and AC-13B OCS Obstacle Data

DELIVERABLE	DESCRIPTION
Shapefile and CAD File	These files will contain the following pieces of data: <ol style="list-style-type: none"> 1) Obstruction Surface Linework 2) Obstruction X-Y-Z Points 3) Obstruction Area Polygon (if applicable) 4) Obstruction Area Grid (if applicable)
Attributes will be included in the Shapefile as Object Data. For the CAD version, attributes will be provided in Spreadsheet Format and can be cross-referenced with the CAD file by Object Number.	Shapefiles will contain the following pieces of object data: <ul style="list-style-type: none"> • Object type • Northing / Easting / Elevation (MSL) • Latitude/Longitude • AGL Height (as able, for penetrating objects only) • Height-Above-Runway-End • Height-Above-Touchdown-Zone • Height-Above-Airport-Elevation • Distance-to-Runway-End • Distance-From-Runway-Centerline (and direction) • Penetration Value (if applicable) • Surface Affected & Slope (if applicable)

Planimetric & Topographic Mapping Compilation

Utilizing the aerotriangulated digital imagery, photographic stereo pairs will be oriented and compiled on digital photogrammetric workstations within **AREA A**.

Mapping data will be compiled meeting the following specifications:

PLANIMETRIC DATA SCALE	1"=100' SCALE (CLASS II STANDARDS)
TOPOGRAPHIC DATA SCALE	2' CONTOUR INTERVAL (CLASS II STANDARDS)

MAPPING DELIVERABLE	FORMAT
PLANIMETRIC FILE	AUTOCAD (Other formats available upon request)
CONTOUR FILE	AUTOCAD (Other formats available upon request)
DIGITAL-TERRAIN-MODEL FILE	AUTOCAD (Other formats available upon request)

Planimetric Features will include (but are not limited to):

- Building Outlines
- Airfield Pavement (Aprons, Taxiways, Runways)
- Airfield Paint Markings
- Airfield Signs
- Airfield Lights
- Roadways/Railways/Bridges
- Sidewalks
- Towers/Antennas
- Utilities (Above-Ground & Identifiable in Imagery)

Mapping Edit and GIS Formatting

In addition to generating mapping data in CAD formats, all collected data will be edited and formatted in the appropriate AGIS format. In terms of GIS-attributes, MTZ will be responsible for populating all geospatial-related and/or critical attributes required for upload. In general terms, the final AGIS file created by MTZ will include both Safety-Critical and Non-Safety-Critical Data. This includes the following:

- 1) **Safety-Critical**
 - a. Airport Airspace Analysis Data (Obstacles)
 - b. Runway Survey Data
 - c. NAVAID Survey Data
- 2) **Non-Safety-Critical**
 - a. Planimetric Data
 - b. Topographic Data

Final GIS data will meet the following specifications:

GIS DATA-MODEL UTILIZED	FAA Airports-GIS (<i>AC 150/5300-18B, Chapter 5</i>)
GIS DELIVERY FORMAT	ArcGIS Shapefile

Airports-GIS Data Submission and Final Reporting

All data will be formatted into compliant Airports-GIS format and prepared for submission. Prior to submission, the survey-files will be tested using the FAA's survey-file-test tool in order to ensure acceptability. A "Final Report" will be generated in accordance with Advisory Circular 150/5300-18B and submitted with the final project file. MTZ will coordinate with Ricondo prior to uploading the final submission to AGIS. Following submission, MTZ will periodically follow up with Ricondo until the final submission receives approval by NGS. Project close-out will also consist of ensuring receipt and acceptance of the obstruction survey and digital mapping data by RICONDO, the FAA and NGS.

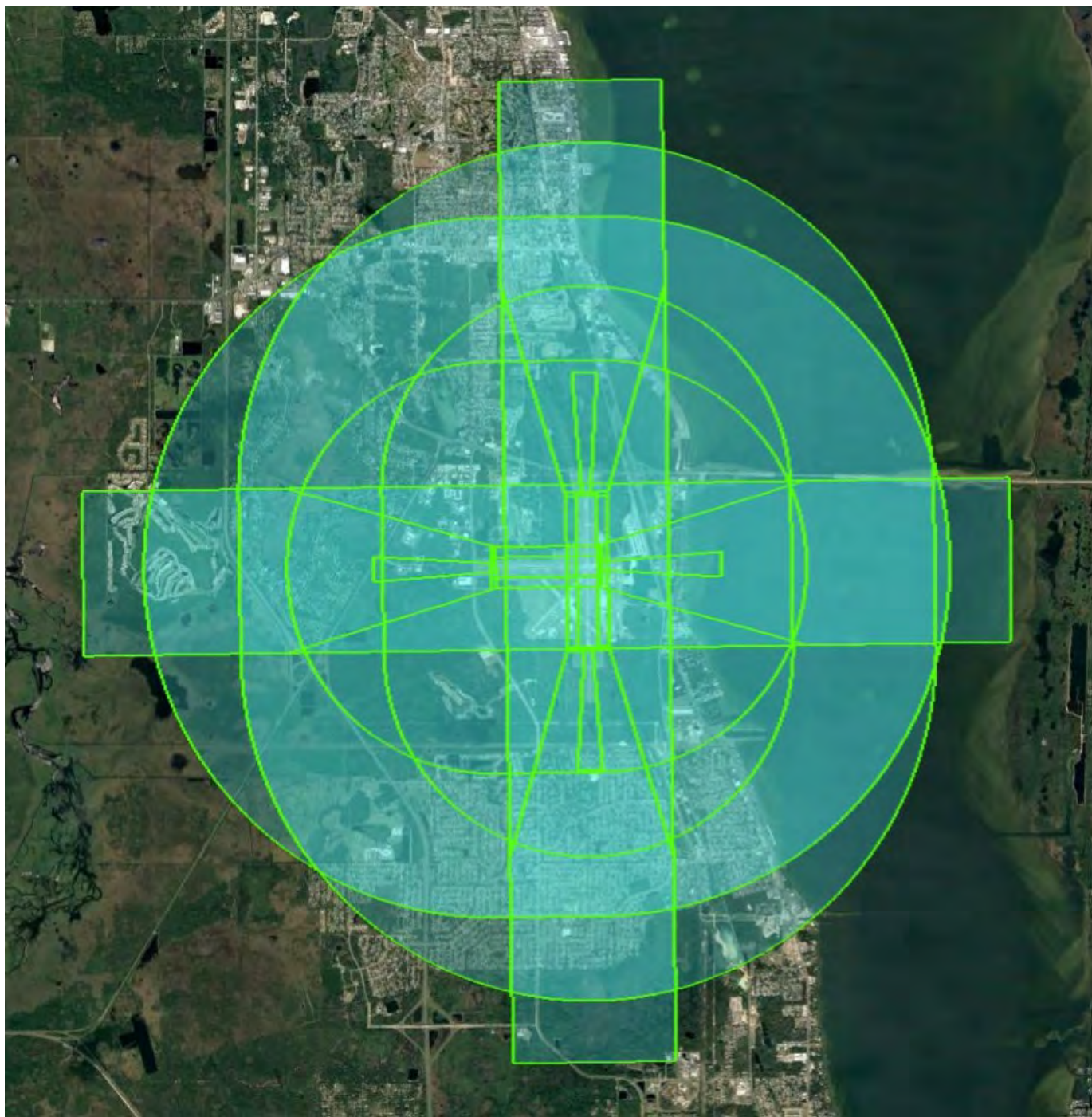
DELIVERABLE SUMMARY
1) Statement of Work Report (for FAA Airports-GIS approval)
2) Aerial Photography Acquisition Report (for FAA Airports-GIS approval)
3) Part 77 & Obstacle-Clearance-Surface Obstruction/Penetration Data
4) Airfield Base-map (Planimetric & Topographic Mapping Data)
5) Supplemental Obstacle Data
6) Digital Ortho Imagery of AREA C (0.50' Resolution)
7) Comprehensive FAA Airports-GIS Deliverable, consisting of: A) Safety Critical Data (Runway, NAVAID, and Airport Airspace Analysis Data) B) Non-Safety Critical Data (Planimetric & Topographic Mapping)
8) Final Report (for FAA Airports-GIS approval)

FEE SCHEDULE

It is understood that compensation for this project will be on a **LUMP SUM** basis. MTZ will invoice Ricondo monthly based on percent-complete of each category below. The following is a proposed fee schedule based on major production processes/work category:

TASK	FEE
Project Planning/Project Management/FAA Airports-GIS Coordination/Field-Survey Consultation	\$ 6,606.30
Production Management	\$ 4,440.43
Imagery Acquisition (Flight Mission)	\$ 4,000.00
Aerotriangulation	\$ 5,573.08
Orthophoto Production (0.50' GSD)	\$ 10,001.50
Planimetric/Topographic Mapping	\$ 47,472.15
Airspace Analysis/Obstruction Survey (Airports-GIS, Part 77, OCS, & Supplemental Obstacle Data)	\$ 19,662.76
Mapping Edit, GIS Formatting / FAA Compliance (Mapping & Obstruction Survey)	\$ 12,838.31
Field-Survey Services	Not Included
TOTAL	\$ 110,594.53

Airports-GIS Airspace Analysis



Green Polygons - 18B/Airports-GIS Obstruction Identification Surfaces
Cyan Shaded Area - 0.50' GSD Ortho Imagery Limit



MTZ | Martinez Geospatial
2915 Waters Road Suite 100
Eagan, Minnesota 55121
Tel: 651.686.8424 Fax: 651.686.8389



Planimetric & Topographic Mapping



Red Polygon - Planimetric & Topographic Mapping Limit



MTZ | Martinez Geospatial
2915 Waters Road Suite 100
Eagan, Minnesota 55121
Tel: 651.686.8424 Fax: 651.686.8389



APPENDIX E THE QUOTIENT GROUP, INC. FEE PROPOSAL

Space Coast Regional Airport (TIX)
Airport Master Plan Update
Labor/Fee Estimate Summary - The Quotient Group

BILLING RATE: \$ - \$ 125.00

			LABOR ESTIMATE (HOURS)			FEE ESTIMATE (\$)			
Task Number and Description		Responsibility	Project Manager	Project Manager / Graphic Designer	Total	Labor	Expenses	Sub - consultants Expenses	Total
1A	Inventory of Existing Conditions		0	32	32	\$ 4,000	\$ -	\$ -	\$ 4,000
1A.9	Tenant Surveys	TQG/R&A	0	32	32	\$ 4,000			\$ 4,000
1E	Stakeholder and Public Involvement		0	60	60	\$ 7,500	\$ -	\$ -	\$ 7,500
1E.3	Titusville-Cocoa Airport Authority Workshops (2 in person meetings)								
1E.3.1	Prepare Workshop Materials	R&A/TQG	0	30	30	\$ 3,750			\$ 3,750
1E.5	Public Workshops (2 in person meetings)								
1E.5.1	Prepare Workshop Materials	R&A/TQG	0	30	30	\$ 3,750			\$ 3,750
12	Documentation		0	48	48	\$ 6,000	\$ -	\$ -	\$ 6,000
12.1	Develop PowerPoint Template	TQG	0	8	8	\$ 1,000			\$ 1,000
12.2	Executive Summary								
12.2.1	Prepare Executive Summary Brochure	R&A/TQG	0	40	40	\$ 5,000			\$ 5,000
Grand Total			0	140	140	\$ 17,500	\$ -	\$ -	\$ 17,500

**MASTER SERVICE AGREEMENT
AIRPORT MASTER PLAN UPDATE
MERRITT ISLAND AIRPORT (COI)**

THIS MASTER SERVICE AGREEMENT (the “Agreement”), made and entered into on _____ 2022, by and between the TITUSVILLE-COCOA AIRPORT AUTHORITY (the “Authority”) and RICONDO & ASSOCIATES, INC. (the “Consultant”).

WITNESSETH:

WHEREAS, the Authority as a dependent special district pursuant to section 189.429, Florida Statutes, is authorized to contract for technical services that may be required; and

WHEREAS, the Authority desires to update its airport master plan (the “Master Plan”) for the Merritt Island Airport (“COI”) as is required from time to time by applicable Federal Aviation Administration (“FAA”) regulations (hereinafter referred to the “Project”); and

WHEREAS, the Consultant is willing and able to perform the services to be performed under this Agreement and in relation to the Project upon the terms and conditions set forth herein; and

WHEREAS, a Request for Qualifications for Master Planning Services, RFQ 2022-001 (the “RFQ”), was issued on March 24, 2022 and the Consultant provided the requested Statement of Qualifications (the “SOQ”) and was selected among all of the SOQs received by Authority as the best qualified and capable respondent to fulfill the tasks in that underlying RFQ’s scope of services; and

NOW, THEREFORE, in consideration of the premises and of the mutual covenants hereinafter contained, it is agreed by and between the parties as follows:

ARTICLE I - SCOPE OF SERVICES

1. The Consultant agrees to update the Master Plan for COI in compliance with FAA Advisory Circular (AC) 150/5070-6B, Change 2, “Airport Master Plans,” the Florida Department of Transportation’s (the “FDOT”) “Airport Master Plan Guidebook (2021)” and in accordance with the specified Tasks and Scope of Work listed in Attachment A – Scope of Services appended hereto and incorporated herein by reference, and to perform other services that may be directed to the Consultant by Authority in relation to the Project.
2. The Consultant may be issued one or more written task orders (each a “Task Order”) during the term of this Agreement. Individual Task Orders submitted by Authority to the Consultant shall address the scope of services, deliverables, cost, time schedule, and any other items deemed necessary by Authority for the successful completion of the task identified in the Task Order. Cost limits and fixed fee amounts for individual Task Orders will be negotiated at the time each Task Order is issued and will be included in the final Task Order. In the event of a conflict between the terms and conditions of this Agreement and a Task Order, the terms and conditions of this Agreement shall control.
3. The Consultant agrees to furnish all labor, materials, services, equipment, tools, and other expenses necessary to diligently and timely perform the professional services required under this Agreement and in compliance with the provisions of Attachment A to this Agreement.

4. The Consultant agrees to comply with all requirements and terms contained in the RFQ which is incorporated into this Agreement by reference. In the event of an express conflict between the RFQ and the terms of this Agreement, this Agreement shall control.

ARTICLE II - PERFORMANCE

1. The term of this Agreement shall be from the date first written above through and including the date Consultant concludes its work on the Project, unless an extension of the term of this Agreement is agreed to in writing signed by all parties to this Agreement and approved by appropriate official action of the governing body of the Authority prior to such term expiration date.
2. In the event that the Consultant performs or causes to be performed any work after: (a) the Agreement's expiration date as set forth within this Agreement, as it may be amended from time to time as set forth above; or (b) termination of this Agreement prior to the expiration date set forth within this Agreement; then the Authority shall make no payment for work performed following the expiration or termination dates, and the Consultant shall forfeit any and all right to payment for such work unless such work is performed after said termination with the express, written authorization of the Authority.
3. The Consultant, on behalf of itself, its officers, directors, shareholders, employees, independent contractors, representatives, attorneys, agents, and assigns, does hereby waive, release, and forever discharge the Authority, and its officers, directors, employees, independent contractors, representatives, attorneys, agents, and assigns, from any and all claims, demands, liens, liability, actions, causes of action, and suits for damages, at law and in equity, in any way connected with or arising from the Consultant's provision of services and work performed following termination of this Agreement, and/or following the expiration date of this Agreement, as it may be amended from time to time through written amendment signed by the parties hereto and approved by appropriate official action of the Authority's governing body, prior to such expiration date.
4. Neither the Authority nor its officers, directors, agents, contractors, and employees shall have authority to extend this Agreement beyond the expiration date set forth within this Agreement unless such extension is set forth within a written amendment signed by the parties hereto and approved by appropriate official action of the Authority's governing body prior to such expiration date. The Consultant shall not rely upon any oral or written representations expressed extrinsic to a written amendment signed by the parties hereto and approved by appropriate official action of the Authority's governing body prior to such expiration date, purporting to alter or amend this Agreement, including, but not limited to, representations relating to the extension of the Agreement's expiration date.
5. Paragraphs 1 through 6 of this Article II - Performance shall survive the termination and expiration of this Agreement.
6. The Consultant shall not proceed with work until the Consultant receives a written "Notice to Proceed" (each a "NTP") from the Authority. Upon receipt of the NTP, the Consultant shall begin to perform the work set forth in the Scope of Services (Attachment A). If the Consultant does commence said work prior to receiving the NTP or performs work not identified in Attachment A, at the request of the Authority, the Consultant does so at its own risk.
7. In the event the Authority discovers a Consultant's error or omission before its discovery by the Consultant, the Authority shall not unreasonably delay in notifying Consultant of such error or

omission in writing. Authority's notice to Consultant shall specify the maximum time period Consultant will be allowed for correction. The Consultant shall make all necessary corrections resulting from its errors and omissions and shall without delay make any corrections necessitated by the negligence, lack of adequate resources, or any other cause within the Consultant's control, and shall make such corrections without additional compensation. Consultant shall track all related costs for the correction. Acceptance of the professional services by the Authority will not relieve the Consultant of the responsibility for any subsequent correction of any such errors and omissions, and the clarification of any ambiguities. The Consultant will be responsible for additional costs in subsequent, related services and/or actions resulting from its errors or omissions. Should the Authority use its own personnel and/or resources to remedy the deficiency, all such costs incurred by the Authority shall be deducted from the sum due or which may become due to the Consultant. In the event all such costs and charges incurred by the Authority exceed the sum which would have been payable under this Agreement, then the Consultant shall reimburse the Authority the amount of said excess within thirty (30) days of receipt of written notice from Authority requesting payment of same.

8. The Consultant shall assign one (1) individual throughout the period of this Agreement who shall have overall Project responsibility unless illness or termination requires replacement. In the event Consultant wishes to change the assigned individual, it shall provide advanced, written notice of the change to Authority. Authority shall be entitled to rely on the decisions and representations of said individual, who shall have the actual and apparent authority to bind Consultant to said decisions and representations.
9. A key person is defined as any individual identified by the Consultant in its Statement of Qualifications (the "SOQ") proposal as being part of the team to be assigned to the Project. The Consultant acknowledges and agrees that the award reflected in this Agreement was based, in material part, on its ability to manage the Project and the qualifications, experience, and capacity of the Consultant's aforementioned key persons, employees, agents and team. The Consultant represents, warrants, and covenants that such key persons are, and will continue to be, available to undertake and perform all services identified herein and fulfill the roles identified in its SOQ. The Consultant shall notify the Authority in writing within ten (10) calendar days when a key person leaves the Project team.
 - a. If a key person leaves the Project team, the Consultant shall promptly propose a replacement within thirty (30) calendar days to and for the Authority's review and written consent.
 - b. The Authority shall have the unilateral right to terminate this Agreement:
 - i. If a key person leaves the Project team for a reason other than death, retirement, incapacitation, or leaving Consultant's employment (including the employment with Consultant's affiliates, subsidiaries, and parent companies/organizations);
 - ii. If a key person listed by the Consultant in its proposal to perform or supervise various aspects of design is changed or leaves the Project team; or
 - iii. If the Authority does not accept the Consultant's proposed key person replacement; or
 - iv. If any material delay in the appointment of key person(s) replacement(s) by Consultant results in unreasonable delay to the Project as determined by Authority in its reasonable discretion.
10. If this Agreement is terminated pursuant to the above, the Consultant shall be paid for actual costs incurred for all services rendered and accepted by the Authority along with an amount of fee proportional to the work completed as of the date of termination with said amounts for completed

work corresponding to the amounts set forth generally in Consultant's bid documents for the Project as accepted by the Authority. Additionally, the Consultant shall not be entitled to any settlement costs, if any. Such termination will not occur if the Consultant provides a key person replacement that is acceptable to the Authority within thirty (30) calendar days of the date when the key person is changed or has left the Project team.

11. The Consultant shall at all times maintain control over and have complete responsibility for all services performed pursuant to this Agreement by the Consultant and any of its subcontractors.
12. The Consultant warrants that all deliverables and professional services produced under this Agreement shall be completed in a workmanlike manner consistent with standards in the trade, profession, or industry. The standard of care applicable to Consultant's services will be that degree of skill and diligence normally employed by consultants performing the same or similar services at the time said services are performed. To the extent there is any dispute between the parties concerning the provisions of this paragraph and quality of work performed by Consultant, the Authority's position and decision on the same shall control as long as the Authority's position and decision is not arbitrary or unreasonable.
13. This Agreement and any authorized amendments may be suspended temporarily, either wholly or in part, by the Authority upon oral notice confirmed in writing within ten (10) calendar days, when the Authority determines that conditions beyond the control of the Consultant are unfavorable to its satisfactory continuation of work. Should such conditions be encountered, the time for completion may be extended in an amount determined by the Authority to be equivalent to the delay. Requests for suspension of time by the Consultant must have the written approval of the Authority to be relied upon and effective. No allowance shall be made for delay or suspension of the services solely due to the fault of the Consultant.
14. Any amendment ordered by the Authority in writing which changes the services provided for by the express terms of this Agreement will be considered extra professional services and shall be specified in a written amendment signed by all parties hereto, which will set forth the nature and scope thereof. The method of payment for extra professional services shall be specified at the time the amendment is written. No verbal or oral changes to the scope of services to be provided by Consultant pursuant to this Agreement shall be effective or shall alter or modify this Agreement in any way unless in writing and signed by all parties hereto. Consultant shall not perform any services not expressly provided by and in this Agreement except as set forth in this paragraph.
15. The Consultant shall not assign or subcontract any or all of the professional services performed under this Agreement without the prior written approval of the Authority. The Consultant will, subsequent to obtaining written approval from the Authority, provide the Authority with a copy of the contract or agreement for professional services.
16. The Consultant shall require its subcontractors to comply with all provisions of 48 C.F.R. Chapter 1, Part 31, and, if the subcontract agreement exceeds One Hundred Thousand and No/00 Dollars (\$100,000.00), the subcontract agreement shall also comply with Paragraph 17 in of this Article. The Consultant will be responsible for any costs or deficiencies resulting from noncompliance if the subcontractors fail to comply with 48 C.F.R. Chapter 1, Part 31, and shall indemnify and hold Authority harmless from same. Any attempted assignment of rights or delegation of duties under this Agreement without the prior written consent of the Authority shall be void.

17. There are no Disadvantaged Business Enterprise (DBE) program goals for this Agreement. However, the Authority, in accordance with Title VI of the Civil Rights Act of 1964 and 49 C.F.R. Part 26, hereby notifies all bidders and proposers that it will affirmatively ensure that in regard to any contract entered into, certified DBE firms will be afforded full opportunity to submit bids and proposals in response to our invitation and will not be discriminated against on the grounds of race, color, sex, age, disability, or national origin in consideration for an award. Although there is no contract-specific goal associated, the Authority encourages Consultant to make the same effort to ensure nondiscrimination in the award and administration of subcontracts, to help remove barriers to the participation of DBEs, and to assist in the development of firms that can compete successfully in the marketplace outside the DBE program.
18. This Agreement is contingent upon the verification that the Consultant has a valid and active Florida Business License and is in good standing in all areas of the Secretary of State's business requirements. If the Consultant is an out of state provider, the Consultant must be registered as a foreign business entity equivalent in Florida, in active status, and in good standing.

ARTICLE III - TERMINATION

1. The Authority may terminate this Agreement without cause thirty (30) calendar days after service of a termination letter to the Consultant. In the event this Agreement is terminated in this manner, the Consultant shall be paid for the actual cost of the professional services which have been completed and accepted by the Authority up to the date of termination with said cost for completed work corresponding to the amounts set forth generally in Consultant's bid documents for the Project as accepted by the Authority.
2. This Agreement is subject to and contingent upon sufficient funds being appropriated, budgeted, and otherwise made available by the Federal Aviation Administration (FAA) and/or Florida Department of Transportation (FDOT) sources. The Authority may terminate this Agreement, and the Consultant waives any and all claims for damages, effective immediately upon receipt of written notice, or any date specified therein, if for any reason the Authority's funding from federal and/or state sources is not appropriated or is withdrawn, limited, or impaired.
3. A default or breach may be declared with or without termination. This Agreement may be terminated by either party upon written notice of default or breach to the other party as follows:
 - a. If, in the Authority's sole but reasonable discretion, the Consultant fails to provide or satisfactorily perform any of the professional services called for by this Agreement within the time requirements specified in this Agreement or within any granted extension of those time requirements; or
 - b. If any state, county, city, or federal license, authorization, waiver, permit, qualification, or certification required by statute, ordinance, law, or regulation to be held by the Consultant to provide the goods or services required by this Agreement is for any reason denied, revoked, debarred, excluded, terminated, suspended, lapsed, or not renewed; or
 - c. If the Consultant becomes insolvent, subject to receivership, or becomes voluntarily or involuntarily subject to the jurisdiction of a bankruptcy court; or
 - d. If Authority materially breaches any material duty under this Agreement and any such breach impairs the Consultant's ability to perform; or

- e. If it is found by the Authority that any quid pro quo or gratuities in the form of money, services, entertainment, gifts, or otherwise were offered or given by the Consultant, or any agent or representative of the Consultant, to any officer or employee of the Authority with a view toward securing an agreement or securing favorable treatment with respect to awarding, extending, amending, or making any determination with respect to the performing of such agreement; or
 - f. If the Consultant knowingly bills the Authority for unallowable costs or non-bona fide goods or services, or for goods and services not provided.
- 4. Termination upon a declared default or breach may be exercised after service of written notice and the subsequent failure of the defaulting party, within fifteen (15) calendar days of service of that notice, to provide evidence, satisfactory to the aggrieved party, showing the declared default or breach has been corrected or, to the extent such default cannot be entirely cured within said 15-day period, that the breaching party has commenced reasonable corrective action and thereafter diligently pursues such corrective action until the breach is cured. Such correspondence shall be deemed to have been served on the date of postmark or, to the extent such written notice is provided by email, on the date identified in said email as the date of delivery to the receiving party.
 - 5. In the event of the Consultant's breach of this Agreement, all costs and charges incurred by the Authority, together with the cost of completing the work under this Agreement, shall be deducted from any money due or which may become due to the Consultant, and Authority may withhold any such payment(s) due Consultant until such costs and charges are reasonably known to Authority. If expenses exceed the sum which would have been payable under this Agreement, then the Consultant shall be liable and shall pay to the Authority the amount of said excess.
 - 6. This Agreement shall be terminated when the professional services contemplated and covered by this Agreement and any related amendments have been completely performed by the Consultant, all items of professional services have been approved and accepted by the Authority, and final payment is made and accepted.

ARTICLE IV - COST

- 1. "The lump sum" method of compensation shall be used for the Consultant's services.
- 2. The total cost of the services by the Consultant for the PROJECT shall not exceed the sum of Six Hundred Fifty-Three Thousand Four Hundred Sixty and Seventy-One Cents (\$653,460.71). Funds not used during the term of this Agreement will not be paid to the Consultant.
- 3. The total amount payable by the Authority for the PROJECT shall not exceed the amount agreed to in this Agreement, unless additional funds are agreed to by written amendment and signed by all parties hereto.
- 4. The cost of the work to be performed under this Agreement will be paid for by the Authority monthly and upon acceptance of the work.
- 5. No additional costs shall be allowed to the Consultant for assistance by or services of others except by express permission in writing by the Authority.

6. The Authority shall pay the Consultant in installments, based upon monthly progress reports showing the status of the professional services, and the degree of completion. The Authority, at its discretion, may, by written notification, waive this limitation.
7. The Consultant's cost billing, reimbursement, and audit will be accomplished in accordance with the federal cost principles set forth in 48 CFR Chapter 1, Part 31.
8. The Consultant is required to submit a monthly progress report in the Authority's format showing the status of the professional services and the degree of completion thereof.

ARTICLE V - SCHEDULE OF PAYMENTS

1. The Consultant shall submit a signed invoice monthly for all services rendered along with one (1) copy of substantiating documentation. The invoice must be submitted on the Consultant's stationery using a format acceptable by the Authority. The Authority will utilize its normal accounting procedure in the payment of the invoices submitted.
2. The Authority reserves the right to inspect and approve the professional services performed before payment is made to the Consultant. Payment will be withheld for deliverables and professional services the Authority determines in its sole but reasonable discretion to be unsatisfactory in that they have not been provided in a workmanlike manner consistent with standards in the trade, profession, or industry. Payment shall remain unpaid until the professional services are completed in accordance with the standards and work requirements defined in this Agreement. In such an event, the Authority will provide the Consultant with a written explanation as to why payment has been withheld.
3. The total cost of services for this Agreement is the negotiated amount identified in Article IV, Paragraph 2. This amount was based upon the Consultant's labor and expenses as well as the costs and fixed fees of all of its subcontractors. If a subcontractor does not expend all funds allocated to it pursuant to Contractor's bid for services identified in its agreement with the Consultant, Consultant shall not redistribute or expend such funds without the prior written approval of the Authority. Failure to notify the Authority prior to the use of such funds will constitute grounds for denial of reimbursement for such expenditures or, to the extent such reimbursement has already been paid to Consultant, Consultant shall repay such reimbursement to Authority in full.
4. Payment of invoices, interest penalties, and discounts shall be paid as follows:
 - a. The Consultant shall be paid within thirty (30) calendar days after receipt of federal funds approved for a postmarked invoice which is complete, correct, and undisputed by the Authority.
 - b. The Authority shall have twenty-one (21) calendar days after postmark of an invoice to dispute any or all of the charges on that invoice. The undisputed amount shall be paid to the Consultant within thirty (30) calendar days after receipt of the federal funds for the approved invoice. The disputed amount shall be negotiated and resolved in good faith by both parties hereto and paid within thirty (30) calendar days after the date the corrected invoice is received by the Authority or is approved by both parties hereto for payment.
 - c. If the Authority fails to pay the Consultant the undisputed amount within sixty (60) calendar days after receipt of federal funds for the approved invoice, the interest penalty assessed to the

Authority shall be one percent (1%) of the undisputed amount per month, not to exceed a total of One Thousand and No/100 Dollars (\$1,000.00).

- d. Payment of penalties shall not apply to the final payment or bill pertaining to this Agreement as determined by the post audit.
5. The prevailing party in any action arising from and/or related to this Agreement is entitled to recover its reasonable attorney's fees and costs incurred in such action from the non-prevailing party.

ARTICLE VI – INDEMNIFICATION

Consultant shall indemnify and hold harmless Authority and its officers, directors, employees, agents and assigns from any and all liability, losses or damages, including reasonable attorneys' fees and costs of defense, that Authority incurs or may incur as a result of claims, demands, suits, causes of action or proceedings of any kind or nature arising out of, relating to or resulting from the negligence or wrongful acts and/or omissions of Consultant and/or its officers, directors, employees, agents, subcontractors or assigns. Consultant shall pay all claims and losses in connection therewith and shall investigate and defend all claims, suits or action of any kind or nature in the name of Authority, where applicable, including appellate proceedings, and shall pay costs, judgments and reasonable attorney's fees which may issue thereon. Consultant expressly understands and agrees that any insurance protection required by this Lease or otherwise provided by Consultant shall in no way limit its responsibility to indemnify, keep and save harmless and defend the Consultant and/or its officers, directors, employees, agents, subcontractors or assigns as herein provided. The obligation of Consultant hereunder shall survive the termination of this Agreement. Consultant's obligation to indemnify Authority hereunder shall in no way affect, abridge or amend Authority's right to assert governmental or sovereign immunity as to any claims, other than those by the parties or their respective permitted transferees and assignees, including without limitation the immunity afforded under section 768.28, Florida Statutes.

ARTICLE VII – MISCELLANEOUS PROVISIONS

1. The Consultant shall be responsible for and shall comply with all applicable federal, state, and local government obligations and Authority policies and procedures. The Consultant will be responsible for and shall pay all taxes, assessments, fees, premiums, permits, and licenses required by law. The Consultant warrants that it has a valid business license. The Consultant agrees to be responsible for and shall pay any such government obligations not paid by its subcontractors during performance of this Agreement. The Authority may set-off any consideration due against any delinquent government obligation.
2. It is expressly understood that the Consultant is an independent contractor and is subject to all federal and state statutes and laws relating to independent contractors. Nothing contained in this Agreement shall be deemed or construed to create a partnership or joint venture, to create relationships of an employer-employee or principal-agent, or to otherwise create any liability for the Authority whatsoever with respect to the indebtedness, liabilities, and obligations of the Consultant or any other party. Neither the Consultant nor its employees, agents or representatives shall be considered employees, agents, or representatives of the Authority.
3. The Consultant shall be solely responsible for its own employees, and the Authority shall have no obligation with respect to:

- a. Withholding of income taxes, FICA, or any other taxes or fees;
 - b. Industrial insurance coverage;
 - c. Participation in any group insurance plans available to employees of the Authority;
 - e. Accumulation of vacation leave or sick leave; and/or
 - f. Unemployment compensation coverage provided by the Authority.
4. The Consultant shall indemnify and hold the Authority harmless from, and defend the Authority against, any and all losses, damages, claims, costs, penalties, liabilities, and expenses arising or incurred because of, incident to, or otherwise with respect to any such taxes, fees, insurance, contributions, leave, or coverage.
 5. Unless expressly provided in this Agreement, the Consultant shall not engage or use the devices and/or services of the Authority's personnel without the prior written consent of the Authority.
 6. The Consultant shall, before commencing professional services under the provisions of this Agreement, furnish to the Authority proof of worker's compensation insurance as required by the State of Florida.
 7. The Consultant shall furnish a Certificate of Errors and Omissions Insurance with a minimum limit of One Million and No/100 Dollars (\$1,000,000.00).
 8. The Consultant shall furnish a Certificate, a Declarations Page, and an Endorsement designating the Authority as an additional insured evidencing Commercial General Liability Insurance with a minimum limit of One Million and No/100 Dollars (\$1,000,000.00) per occurrence. These policies shall be maintained for the entire period that work is conducted under this Agreement. The Consultant shall provide replacement evidence of insurance no less than thirty (30) calendar days prior to the date of expiration. The policies shall include a thirty (30) calendar day advance written notice of any cancellation of said policies. The Consultant shall furnish the Authority with certificates of such insurance prior to commencement of professional services.
 9. All insurance required by this Agreement shall be placed with insurers with a rating from the current issue of Best's Key Rating Guide of no less than A-: VII.
 10. The Authority has the option of requesting, at any time, a meeting with the Consultant or its authorized representative to discuss and review Project status.
 11. The Consultant has total responsibility for the accuracy and correctness of written data prepared under the terms of this Agreement and shall check all such material accordingly for completeness, missing items, correct multipliers, and consistency. The deliverables shall be reviewed by the Authority for conformity with the Authority's procedures and contract terms. The Consultant acknowledges that review by the Authority does not include detailed review or checking of major components and related details or the accuracy of such deliverables, and the Authority's review shall not relieve the Consultant of its total responsibility for the accuracy and correctness of data prepared under the terms of this Agreement.
 12. The Consultant shall appear as a consultant and, if necessary, as an expert witness on behalf of the Authority in any subsequent court action which involves any of the services required by this

Agreement. Compensation for services rendered in this regard will be paid at a rate to be negotiated at the time such services are necessary.

13. Upon completion, termination, or cancellation of the services embraced under this Agreement, all professional services inclusive of research, investigation, analysis data, reports (including files stored on mobile media), computations, tabulations, original drawings and digital design files (including CAD information stored on mobile media), correspondence input from external sources (including subcontractors), etc., shall be delivered to and become the property of the Authority, without limitation. Reuse of said materials, information or data, during performance or following termination of this Agreement, on any other project or for any other purpose except as provided for herein, shall be at the Authority's sole decision. The Consultant shall not utilize any materials, information, or data obtained as a result of performing the services called for in this Agreement in any commercial or academic publication or presentation without the express written permission of the Authority. The Consultant shall not reference an opinion of an employee or agent of the Authority obtained as a result of performing the services called for in this Agreement, in any publication or presentation, without the written permission of the employee or agent to whom the opinion is attributed, in addition to the written permission of the Authority.
14. All digital copies of reports, graphic data, and other materials shall be delivered to the Authority via a project-specific Dropbox folder. Files shall be prepared using the most current version of Microsoft Word, Microsoft Excel, Microsoft PowerPoint, and AutoCAD. Geographic information systems (GIS), drawings, maps, and other GIS data shall be delivered via Environmental Systems Research Institute (ESRI) data formats or Google Earth Pro KMZ or KML file formats as appropriate for those work products.
15. The Consultant agrees that any reports, materials, studies, photographs, negatives, drawings, or other documents prepared by the Consultant in the performance of its obligations under this Agreement shall be the exclusive property of the Authority. The Consultant shall remit all such documents to the Authority upon completion, termination, or cancellation of this Agreement or upon written request of the Authority. The Consultant shall not use, willingly allow, or cause to have such documents used for any purpose other than performance of the Consultant's obligations under this Agreement, without the prior written consent of the Authority.
16. The Consultant and successors, executors, administrators, and assigns of the Consultant's interest in the professional services or the compensation herein provided shall be bound to the Authority to the full legal extent to which the Consultant is bound with respect to each of the terms of this Agreement.
17. The Consultant warrants that it has not employed or retained any company or persons (other than a bona fide employee working solely for the Consultant) to solicit or secure this Agreement and that the Consultant has not paid or agreed to pay any company or persons (other than a bona fide employee working solely for the Consultant) any fee, commission, percentage, brokerage fee, or any other gifts contingent upon or resulting from the award or making of this Agreement. For breach or violation of this warranty, the Authority shall have the right to annul this Agreement without liability, or, in its discretion, to deduct from the Agreement price or consideration, or otherwise recover, the full amount of such fee, commission, percentage, brokerage fee, gift, or contingent fee.
18. Any dispute arising under this Agreement as to performance, compensation, and the interpretation of satisfactory fulfillment of the terms of this Agreement shall be decided by the Authority. It is the intent of the Authority to resolve disputes at the lowest level possible. Nothing herein contained shall

impair either of the parties' right to file suit in the state district courts of the State of Florida. The parties further agree that sole and exclusive jurisdiction and venue for any action arising from and/or related to this Agreement shall lie irrevocably in the state courts in and for Brevard County, Florida, forsaking all other jurisdictions and venues and without regard to forum non conveniens.

19. During the performance of this Agreement, the Consultant, for itself, its assignees and successors in interest agrees as follows:

- a. Compliance with Regulations: The Consultant shall comply with all of the regulations relative to nondiscrimination in federally-assisted programs of 49 CFR Part 21 as they may be amended from time to time (hereinafter "Regulations"), which are herein incorporated by reference and made a part of this Agreement.
- b. Nondiscrimination: The Consultant, with regard to the professional services performed by it during the Agreement, shall not discriminate on the grounds of race, color, age, religion, sex, creed, handicap, or national origin in the selection and retention of subcontractors, including procurement of materials and leases of equipment. The Consultant shall not participate either directly or indirectly in the discrimination prohibited by Section 21.5 of the Regulations, including employment practices, when the Agreement covers a program set forth in Appendix B of the Regulations.
- c. Solicitations for Subcontracts, Including Procurement of Materials, and Equipment: In all solicitations either by competitive bidding or negotiation made by the Consultant for professional services to be performed under a subcontract, including procurement of materials or leases of equipment, each potential subcontractor or supplier shall be notified by the Consultant of the Consultant's obligations under this Agreement and the Regulations relative to nondiscrimination on the grounds of race, color, age, religion, sex, creed, handicap, or national origin.
- d. Sanctions for Noncompliance: In the event of the Consultant's noncompliance with the nondiscrimination provisions of this Agreement, the Authority shall impose such Agreement sanctions as it or the FAA may determine to be appropriate, including, but not limited to:
 - (1) Withholding of payments to the Consultant under the Agreement until the Consultant complies, and/or in part.
 - (2) Cancellation, termination, or suspension of the Agreement, in whole.
- e. Agreements with subcontractors will include provisions making all subcontractor records available for audit by the Authority or the FAA.
- f. Incorporation of Provisions: The Consultant will include the provisions of Paragraphs (a) through (f) above in every subcontract including procurement of materials and leases of equipment, unless exempt by Regulations, order, or instructions issued pursuant thereto. The Consultant will take such action with respect to any subcontract or procurement as the Authority or the FAA may direct as a means of enforcing such provisions, including sanctions for non-compliance. In the event Consultant becomes involved in, or is threatened with, litigation by a subcontractor or supplier as a result of such direction, the Consultant may request the Authority to enter into such litigation to protect the interests of the Authority, and the Consultant may request the United States to enter into such litigation to protect the interests of the United States.

20. Since federal funds shall be used for payment of all or part of this Agreement, the Consultant, for itself, its assignees, and successors in interest agrees as follows:
- a. Debarment and/or Suspension: The Consultant certifies that neither it nor its subcontractors, nor their principals are presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any federal Authority or agency. Consultant is subject to suspension and debarment actions as specified in 2 CFR Part 1200 and 2 CFR Part 180, potential cause of action under the False Claims Act as specified in 32 U.S.C. §§ 3729-3733, inclusive, and prosecution for making a false statement as specified in 18 U.S.C. § 1020.
 - b. ADA: The Consultant and subcontractor shall comply with all terms, conditions, and requirements of the Americans with Disabilities Act of 1980, as amended, and the regulations adopted thereunder contained in 49 CFR Part 27, and any relevant program- specific regulations.
 - c. Civil Rights: The Consultant and subcontractor shall comply with the requirements of the Civil Rights Act of 1964, as amended, the Rehabilitation Act of 1973, as amended, and any relevant program-specific regulations and shall not discriminate against any employee or person offered employment because of race, national origin, creed, color, sex, religion, age, disability, or handicap condition.
21. Each party agrees to keep and maintain under generally accepted accounting principles full, true, and complete records and documents pertaining to this Agreement and present, at any reasonable time, such information for inspection, examination, review, audit, and copying at any office where such records and documentation are maintained. It is expressly understood that the duly authorized representatives of the Authority, FAA, FDOT and the Department of Transportation's Inspector General, the Comptroller General of the United States, or any of their duly authorized representatives shall have the right to inspect/audit the professional services and charges of the Consultant whenever such representatives may deem such inspection to be desirable or necessary. Such records and documentation shall be maintained for three (3) years after final payment is made.
22. The Consultant shall use its own vehicles, and the Authority is not responsible for the payment of any premiums, deductibles, or assessments on any insurance policies purchased by the Consultant.
23. The Consultant warrants that all deliverables and work produced under this Agreement shall be completed in a workmanlike manner consistent with standards in the trade, profession, or industry.
24. The Consultant agrees that, prior to any sale, transfer, business name change, change in principals, or any other occurrence that alters this Agreement in any way, the Consultant shall notify the Authority of such intent at least seven (7) calendar days prior to making said change.
25. All notices or other communications required or permitted to be given under this Agreement shall be in writing and shall be deemed to have been duly given if delivered personally in hand, by telephonic facsimile with simultaneous regular mail, or mailed certified mail, return receipt requested, postage prepaid on the date posted, and addressed to the other party at the address set forth below:

FOR Authority:

Kevin Daugherty, AAE
Director of Airports
Titusville – Cocoa Airport Authority
355 Golden Knights Blvd.
Titusville, Florida 32870
Phone: (321) 267-8780
Email: kdaugherty@flairport.com

FOR Consultant:

Pete Ricondo, P.E.
Senior Vice President
Ricondo & Associates, Inc.
1000 NW 57th Court, Suite 920
Miami, FL 33126
Phone: (305) 260-2727 x251
Email: pricondo@ricondo.com

26. This Agreement and the rights and obligations of the parties hereto shall be governed by, and construed according to, the laws of the State of Florida.
27. As used herein the term “Consultant” shall include the plural as well as the singular, and the feminine as well as the masculine.
28. Neither party shall be deemed to be in violation of this Agreement if it is prevented from performing any of its obligations hereunder for any reason beyond its control, including, without limitation, strikes, inmate disturbances, acts of God, civil or military authority, act of public enemy, or accidents, fires, explosions, earthquakes, floods, winds, failure of public transportation, or any other similar serious cause beyond the reasonable control of either party. In such an event the intervening cause must not be through the fault of the party asserting such an excuse, and the excused party is obligated promptly to perform in accordance with the terms of this Agreement after the intervening cause ceases.
29. In connection with the performance of work under this Agreement, the Consultant agrees not to discriminate against any employee or applicant for employment because of race, color, religion, sex, national origin, age, disability, pregnancy, sexual orientation, genetic information (GINA) or gender identity or expression, including, without limitation, with regard to employment, upgrading, demotion or transfer, recruitment or recruitment advertising, layoff or termination, rates of pay or other forms of compensation, and selection for training, including without limitation apprenticeship. The Consultant further agrees to insert this provision in all subcontracts hereunder, except subcontracts for standard commercial supplies or raw materials.
30. The Consultant shall keep confidential all information, in whatever form, produced, prepared, observed, or received by the Consultant to the extent that such information is confidential by law or otherwise required by this Agreement.

31. Pursuant to Florida Statutes, information or documents may be open to public inspection and copying. The Authority will have the duty to disclose unless a particular record is confidential by law or otherwise exempt from disclosure pursuant to chapter 119, Florida Statutes.
32. The illegality or invalidity of any provision or portion of this Agreement shall not affect the validity of the remainder of the Agreement and this Agreement shall be construed as if such provision did not exist. The unenforceability of such provision shall not be held to render any other provision or provisions of this Agreement unenforceable.
33. Authority and Tenant agree this Agreement is the result of negotiation between the parties hereto and has been typed/printed by one party for the convenience of both parties, and the parties covenant that this Agreement shall not be construed in favor of or against any of the parties hereto or against the “drafter” hereof.
34. Except as otherwise provided for by law or this Agreement, the rights and remedies of the parties hereto shall not be exclusive and are in addition to any other rights and remedies provided by law or equity, including, without limitation, the recovery of actual damages and the prevailing party’s reasonable attorney’s fees and costs.
35. It is specifically agreed between the parties executing this Agreement that it is not intended by any of the provisions of any part of this Agreement to create in the public or any member thereof a third party beneficiary status hereunder, or to authorize anyone not a party to this Agreement to maintain a suit for personal injuries or property damage, or pursuant to the terms or provisions of this Agreement.
36. The parties hereto represent and warrant that the person executing this Agreement on behalf of each party has full power and authority to enter into this Agreement and that the parties are authorized by law to perform the services set forth herein.
37. This Agreement constitutes the entire agreement of the parties and such is intended as a complete and exclusive statement of the promises, representations, negotiations, discussions, and other agreements that may have been made in connection with the subject matter hereof. Unless an integrated attachment to this Agreement specifically displays a mutual intent to amend a particular part of this Agreement, general conflicts in language between any such attachment and this Agreement shall be construed consistent with the terms of this Agreement. Unless otherwise expressly authorized by the terms of this Agreement, no modification or amendment to this Agreement shall be binding upon the parties unless the same is in writing and signed by the respective parties hereto and the Attorney General.
38. At the end of the term of this Agreement described in Article II – Performance, Paragraph 1, the Consultant will be evaluated, and that evaluation may be used for evaluation of future procurements.

(Signature Page Follows)

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK]

IN WITNESS WHEREOF, the authorized representatives of the Consultant and the Authority have caused their names to be signed hereon on the date first above written.

Signed, Sealed and Delivered
in the presence of:

Witness

Witness

AUTHORITY:
TITUSVILLE-COCOA AIRPORT AUTHORITY

By: _____
Kevin Daugherty, AAE
Director of Airports

Attest: _____
Name: _____
Position: _____
(corporate seal)

Kimberley Davis
Witness

Ganett Bond
Witness

CONSULTANT:
RICONDO & ASSOCIATES, INC.

By: _____
Printed Name: _____ Pete Ricondo, P.E.

Printed Title: _____ Senior Vice President

Attest: [Signature]
(corporate seal)



Attachment A



May 2022

Merritt Island Airport

Master Plan Update Scope of Services

Prepared for:

Titusville-Cocoa Airport Authority

Prepared by:

RICONDO

In association with:

American Infrastructure Development, Inc.

Brown & Phillips, Inc.

Martinez Geospatial, Inc.

The Quotient Group

Ricondo & Associates, Inc. (Ricondo) prepared this document for the stated purposes as expressly set forth herein and for the sole use of Titusville-Cocoa Airport Authority and its intended recipients. The techniques and methodologies used in preparing this document are consistent with industry practices at the time of preparation and this Report should be read in its entirety for an understanding of the analysis, assumptions, and opinions presented. Ricondo & Associates, Inc. is not registered as a municipal advisor under Section 15B of the Securities Exchange Act of 1934 and does not provide financial advisory services within the meaning of such act.

TABLE OF CONTENTS

Scope of Services	1
Task 1A. Inventory of Existing Conditions	2
1A.1 Background, Airport History, and Aeronautical Role.....	2
1A.2 Inventory of Airport Physical Facilities	2
1A.2.1 Airfield	2
1A.2.2 Fixed Base Operator/General Aviation Facilities	2
1A.2.3 Support Facilities.....	3
1A.2.4 Non-Aeronautical Facilities	3
1A.2.5 Facilities Condition and Age Estimation	3
1A.3 Airspace Data	3
1A.4 Meteorological Conditions	4
1A.5 Land Use.....	4
1A.5.1 On-Airport.....	4
1A.5.2 Off-Airport	4
1A.6 Utilities	4
1A.7 Socioeconomic Data.....	4
1A.8 Environmental Conditions	5
1A.9 Tenant Surveys.....	6
1A.10 Prepare Draft Working Paper.....	6
1A.11 Meetings.....	6
Task 1B. Emerging Trends and Technologies	7
1B.1 Emerging Trends and Technologies.....	7
1B.2 Review of General Aviation Industry Trends and Factors Affecting Demand	7
Task 1C. Visioning Session With TCAA Board Members	8
1C.1 Visioning Session	8
Task 1D. Strengths and Opportunities Assessment	9
1D.1 Strengths and Opportunities Assessment	9
1D.2 Meetings.....	9
Task 1E. Stakeholder and Public Involvement	10
1E.1 Technical Advisory Panel	10
1E.1.1 Prepare Briefing Materials	10
1E.1.2 Attend and Moderate Technical Advisory Panel Briefings	10
1E.2 Citizens Advisory Panel.....	10

1E.2.1	Prepare Briefing Materials	10
1E.2.2	Attend and Moderate Citizens Advisory Panel Briefings.....	11
1E.3	Titusville-Cocoa Airport Authority Workshops	11
1E.3.1	Prepare Workshop Materials	11
1E.3.2	Conduct Workshops	11
1E.4	Titusville-Cocoa Airport Authority Briefings	11
1E.4.1	Prepare Briefing Materials	11
1E.4.2	Attend Board Meetings and Conduct Briefings	12
1E.5	Public Workshops	12
1E.5.1	Prepare Workshop Materials	12
1E.5.2	Attend Public Workshops	12
Task 2.	Aerial Surveying and Mapping	13
2.1	Project Planning / FAA Airports-GIS Coordination / Field-Survey Consultation	13
2.2	Imagery Acquisition (Flight Mission).....	13
2.3	Aero-Triangulation	14
2.4	Orthophoto Production	14
2.5	Planimetric/Topographic Mapping	14
2.6	Airspace Analysis/Obstruction Survey	14
2.7	Mapping Edit and GIS Formatting/FAA Compliance	14
2.8	Field-Survey Services	15
2.8.1	Establish Geodetic Control / Validate Existing PACs / SACs	15
2.8.2	Runway Surveys	15
2.8.3	NAVAID Surveys	15
Task 3.	Aviation Activity Forecasts.....	17
3.1	Analysis of Historical Activity Patterns	17
3.2	Develop Aviation Activity Forecasts	17
3.3	Identify Critical Aircraft	17
3.4	Deliverables	18
3.4.1	Prepare Draft Working Paper	18
3.4.2	Prepare Final Working Paper	18
3.5	Meetings.....	18
Task 4.	Demand/Capacity Analysis and Airport Requirements	19
4.1	Airfield	19
4.1.1	Airfield Demand/Capacity Assessment	19
4.1.2	Runway Length Requirements	19

4.1.3	Airport Requirements	19
4.2	General Aviation And Fixed Base Operator Facilities	20
4.3	Support Facilities.....	20
4.4	Landside Facilities	20
4.5	Prepare Draft Working Paper.....	20
4.6	Meetings.....	21
Task 5.	Formulate Alternatives	22
5.1	Airfield Alternatives.....	22
5.2	Develop and Evaluate General Aviation Facility Concept Plans	22
5.3	Develop Support Facility Concept Plans.....	22
5.4	Develop Overall Airport Campus Concept Plans	22
5.5	Evaluate Alternatives/Concepts	23
5.6	Develop Rough Order of Magnitude Cost Estimates.....	23
5.7	Prepare Draft Working Paper.....	23
5.8	Meetings.....	23
Task 6.	Environmental Overview	24
6.1	Evaluation of Proposed Development.....	24
6.2	Airport Recycling, Reuse, and Waste Reduction Plan	24
6.3	Prepare Draft Working Paper.....	25
6.4	Meetings.....	25
Task 7.	Capital Improvement Program.....	26
7.1	Validation and Reprogramming of Existing Five-Year CIP	26
7.2	Coordinate Project Sequencing	26
7.3	Develop CIP and Funding Sources.....	26
7.4	Prepare Draft Project Summaries And Exhibits.....	26
7.5	Prepare Draft Working Paper.....	27
7.6	Meetings.....	27
Task 8.	Financial Plan.....	28
8.1	Collect and Review Financial Data	28
8.2	Prepare Financial Plan	28
8.2.1	Pro-Forma Analysis.....	29
8.2.2	Sensitivity Analysis.....	29
8.3	Prepare Draft of Financial Plan	29
8.4	Meetings.....	29
Task 9.	Refine The Preferred Alternative	30

9.1	Alternative Refinement	30
9.2	Meetings.....	30
Task 10.	Airport Layout Plan Set	31
10.1	Title Sheet	31
10.2	Airport Data Sheet.....	31
10.3	Existing Airport Layout Plan	31
10.4	Airport Layout Plan	32
10.5	Airport Airspace Drawing	32
10.6	Inner Portion of the Approach Surface Drawings.....	32
10.7	Departure Surface Drawing	33
10.8	Existing Land Use Drawing.....	33
10.9	Proposed Land Use Drawing.....	33
10.10	Deliverables	33
10.10.1	Draft Airport Layout Plan Set	33
10.10.2	Revise Draft Airport Layout Plan and Respond to Sponsor Comments.....	34
10.10.3	Prepare Checklists According to SOP 2.00.....	34
10.10.4	Revised Draft Airport Layout Plan Set Submittal.....	34
10.10.5	Revise Draft Airport Layout Plan Set and Respond to FAA and FDOT Comments	34
10.10.6	Prepare Final Airport Layout Plan Set	34
10.11	Meetings.....	34
Task 11.	Exhibit 'A' Airport Property Inventory Map.....	35
11.1	Title Work.....	35
11.2	Boundary Survey	35
11.3	Exhibit 'A' Airport Property Inventory Map	36
11.4	Prepare Checklist According to SOP 3.00	36
11.5	Meetings.....	36
Task 12.	Documentation	37
12.1	Develop PowerPoint Template.....	37
12.2	Executive Summary	37
12.2.1	Prepare Executive Summary Brochure.....	37
12.2.2	Prepare Executive Summary Powerpoint.....	37
12.3	Prepare Draft Airport Master Plan Update Report	37
12.4	Respond to Sponsor, FAA, and FDOT Comments	37
12.5	Prepare Final Airport Master Plan Update Report.....	38
Task 13.	Project Administration and Coordination	39

13.1	Grant Services.....	39
13.2	Develop Monthly Status Reports.....	39
13.3	Other Meetings (In Addition To Those Identified Within The Previous Individual Tasks)	39
13.3.1	Kick-Off Meeting	39
13.3.2	TCAA Staff Coordination Calls	39
13.3.3	FAA Coordination Briefings.....	39
13.3.4	FDOT Coordination Briefing	40
Task 14.	Noise Analysis (Supplemental Task)	41
14.1	Airport Definition in Noise Model.....	41
14.2	Existing and Forecast Activity and Aircraft Fleet Mix.....	41
14.3	Radar Data Collection/Noise Model Flight Track Development	42
14.4	Runway Use	43
14.5	Aircraft Performance Operational Profile.....	44
14.6	Aircraft Noise Exposure Contours Baseline (Existing) and Future Contours	44
14.6.1	Baseline (Existing) Noise Contours.....	44
14.6.2	Noise Contours for Preferred Alternative (Future Year)	44
14.7	Exposure Analysis	45
14.8	Deliverables	45
	Fee Proposal and Schedule of Meetings.....	46

LIST OF APPENDICES

Appendix A	Ricondo & Associates, Inc. Fee Proposal
Appendix B	American Infrastructure Development, Inc. Fee Proposal
Appendix C	Brown & Phillips, Inc. Fee Proposal
Appendix D	Martinez Geospatial Fee Proposal
Appendix E	The Quotient Group, Inc. Fee Proposal

LIST OF TABLES

Table 1	Ricondo Team Firms and Project Responsibilities	1
Table 2	Merritt Island Airport Master Plan Update Fee Proposal	47
Table 3	Merritt Island Airport Master Plan Update Schedule of Meetings	48

SCOPE OF SERVICES

The Titusville-Cocoa Airport Authority (TCAA) has requested a proposal from Ricondo & Associates, Inc. (Ricondo) to prepare an Airport Master Plan Update (MPU or the Study) for the Merritt Island Airport (COI or the Airport). The following work program describes the professional services and technical analyses required to successfully complete the MPU for the Airport within the Federal Aviation Administration's (FAA's) and Florida Department of Transportation's (FDOT's) framework and published guidelines for airport master planning.

Ricondo will be supported by a team of subconsultants, providing specialty services and support as listed in **Table 1**. Collectively, the firms are referred to throughout this Scope of Services as the 'Ricondo Team.'

TABLE 1 RICONDO TEAM FIRMS AND PROJECT RESPONSIBILITIES

FIRM	PROPOSED PROJECT RESPONSIBILITIES	DBE
Ricondo & Associates, Inc.	Overall Project Management and Master Plan Development, Client Coordination and Communication, and Quality Assurance/Quality Control	
American Infrastructure Development, Inc.	Engineering Feasibility, Cost Estimating, Utilities Analysis, and Stakeholder and Public Involvement	■
Brown & Phillips, Inc.	Surveying and Establishment of Ground Control and Exhibit "A" Airport Property Inventory Maps	■
The Quotient Group	Stakeholder and Public Involvement Material Development and Graphic Support	■
Martinez Geospatial, Inc.	Aerial Photography and Topographic Mapping	■

NOTE:

DBE – Disadvantaged Business Enterprise

The purpose of the MPU is to comprehensively assess the 20-year needs of the Airport and based on these results, update the Capital Improvement Program (CIP) and Airport Layout Plan's (ALP) set. This project will also include the development of mapping and surveying in compliance with the FAA's prescribed Airports Geographic Information Systems (AGIS) requirements. The MPU will be conducted in accordance with FAA Advisory Circular (AC) 150/5300-13B, *Airport Design*, FAA AC 150/5070-6B, *Airport Master Plans*, and the *FDOT Guidebook for Airport Master Planning*.

The last comprehensive master plan for COI was initiated in 2007 and completed in 2009. Since the drafting of the 2009 MPU, the TCAA has completed numerous improvement projects, the state of the general aviation (GA) industry has evolved, and the FAA's design and other regulatory guidance have been updated. The MPU is needed to plan for an appropriate mix of land uses, facilities, and infrastructure to support forecast aviation and non-aviation needs.

This Scope of Services includes background information describing the context in which the master planning effort will be accomplished, along with areas of special emphasis. To the extent practical, these efforts will leverage the findings and recommendations from recent and ongoing studies, analyses, project data, and capital improvement initiatives. The tasks and subtasks proposed to prepare the MPU, and related efforts are described in the remainder of this Scope of Services proposal.

Summary of Project Costs and Meetings

- A summary of the fee for each task and the total MPU cost is contained in **Table 2**.
- Details of each firm's respective proposals are included in **Appendices A** through **E**.
- **Table 3** lists the meetings proposed as part of this MPU, along with anticipated duration, number of persons from the Ricondo Team that would participate, and supporting meeting materials to be prepared.

TASK 1A. INVENTORY OF EXISTING CONDITIONS

The Ricondo Team will collect, assemble, and organize existing Airport information needed to develop an inventory of existing conditions from a variety of sources including, but not limited to:

- A site visit and interview with Airport staff conducted as part of this task (see Task 1A.9, for budgeting purposes, it is anticipated the site visit will include up to two (2) members of the Ricondo Team and last up to six (6) hours.
- 2009 Airport Master Plan and other planning studies provided by TCAA
- Aerial mapping completed in Task 2
- As-built/record drawings provided by TCAA for recently completed capital projects
- FAA and FDOT databases

The primary subtasks associated with the Inventory of Existing Conditions are outlined in the following subsections.

1A.1 BACKGROUND, AIRPORT HISTORY, AND AERONAUTICAL ROLE

This subtask includes background information pertinent to the MPU, including a summary of the goals and objectives identified as part of Tasks 1C and 1D. The Airport's history, including a summary of major developments, improvements, and key milestones will be presented as a (graphic) timeline. The timeline will utilize readily available historical photographs provided by TCAA staff. COI's aeronautical role within the federal, state, and local air transportation system will be documented. Specifically, the most recent National Plan of Integrated Airport Systems (NPIAS) will be reviewed, and COI's existing and future role will be discussed.

1A.2 INVENTORY OF AIRPORT PHYSICAL FACILITIES

1A.2.1 AIRFIELD

The goal of this task is to collect and document data and information regarding the physical characteristics and conditions of existing airfield operating systems (defined herein for purposes of this task as the runway, taxiways, taxilanes, and aircraft aprons) at COI. This includes data such as geometric dimensions, runway pavement strengths, navigational aids (NAVAIDs), operational restrictions, deviations from FAA design standards, and other pertinent airfield data. Information related to the condition of various facilities will be obtained from existing published FAA/FDOT data, pavement condition index reports, and from other information provided by TCAA staff.

1A.2.2 FIXED BASE OPERATOR/GENERAL AVIATION FACILITIES

Structures devoted to the use of general aviation activities, including fixed base and corporate aircraft operators, will be identified and evaluated as to their size, use (maintenance hangar, storage hangar, office, etc.), and general

condition. Also included in the inventory will be a description of the services provided by each FBO and tenant. General aviation facilities, including vehicular parking areas, aircraft ramp areas, number of tiedowns, and hangars by type (conventional and T-hangar), will be identified and quantified by spatial area or other appropriate measures.

This inventory will be limited to the identification of overall square footage of building/hangar and general aviation apron areas available based on information obtained by the Ricondo Team or provided by TCAA staff, as well as information obtained from previous studies or projects. It is anticipated that any available building condition information collected as part of the annual inventory and inspection process will be provided to the Ricondo Team by TCAA staff.

1A.2.3 SUPPORT FACILITIES

Airport support facilities to be inventoried will include, but not necessarily be limited to fuel farms, the electrical vault, and Airport administration and maintenance facilities. Existing reports, design documents, and other available information will be utilized to inventory the existing airport support facilities. As available, the following information will be summarized and presented in the Inventory of Existing Conditions:

- Facility size and use
- General site conditions
- Airside and/or landside access
- Near term planned improvements anticipated to occur on or before fiscal year 2025

1A.2.4 NON-AERONAUTICAL FACILITIES

This subtask will include an inventory of the non-aeronautical facilities within the boundaries of the Airport. The information related to the type of facility, building area, leasehold boundaries, and function will be inventoried and presented in both narrative and graphic formats. Information will be obtained from TCAA staff, existing leaseholds, and previous planning studies or capital projects. It is anticipated that TCAA staff would provide leasehold boundaries in AutoCAD format. The re-creation of layouts of existing or proposed facilities and infrastructure in AutoCAD is not included in this Scope of Services.

1A.2.5 FACILITIES CONDITION AND AGE ESTIMATION

A facilities condition and age estimation summary will be included in the Inventory of Existing Conditions. The data will be presented in tabular format (and corresponding exhibit) and include the estimated age of on-Airport facilities, existing tenants and corresponding lease term, and overall condition of the facility (e.g., needs light/routine maintenance, requires renovation, reached its useful life and utility). The information will be obtained from the site visit (Task 1A.9) and from other data, input, and previous studies provided by TCAA staff, including any available building condition information collected as part of the annual inventory and inspection process by TCAA or others.

1A.3 AIRSPACE DATA

This subtask will include a discussion on the classification of airspace above COI and up to five nautical miles from each runway end. Additionally, an overview of the current approach and departure procedures, published noise abatement procedures, and a generalized summary of traffic patterns will be provided.

1A.4 METEOROLOGICAL CONDITIONS

The Ricondo Team will assemble and analyze 10-years of historical wind and weather data obtained from the National Oceanic and Atmospheric Administration (NOAA). Ceiling, visibility, wind speed, and direction will be analyzed to develop a wind rose, assess existing wind coverage, and determine the percentage of observations in visual and instrument meteorological conditions. This information will be obtained for use in the airfield demand/capacity analysis, as well as for the update of the ALP drawing set.

1A.5 LAND USE

1A.5.1 ON-AIRPORT

As part of this subtask, the Ricondo Team will identify and quantify the existing on-Airport land uses by airfield, aviation development, non-aeronautical development, and vacant/undeveloped areas. The information will be obtained from existing TCAA documents and through discussions with Airport staff. Information will be presented tabularly and illustrated on an exhibit. As available and provided electronically by TCAA staff, existing leasehold boundaries will also be depicted. The budget includes the re-creation of up to six (6) leasehold boundaries in AutoCAD from legal descriptions of the boundaries, assumed to be provided by the TCAA.

1A.5.2 OFF-AIRPORT

Existing land use mapping, aerial photography, Brevard County's Comprehensive Plan, and other documentation pertaining to current and future land use in the vicinity of the Airport (up to one mile from the Airport boundary) will be reviewed. As part of this subtask, the proximity of households and population up to 1.5 miles of each existing runway end will be estimated utilizing available data from the United States Census Bureau.

1A.6 UTILITIES

This subtask will document the locations of significant utilities (water, sewer, and electricity) surrounding the Airport. Significant utilities will include the nearest water connection and size; the nearest sewer and size; and the nearest electric substation and size. Sources referenced will include but are not limited to existing as-built drawings and/or related data and the Brevard County Utility Services Department. Florida Power and Light will serve as an additional resource for determining electrical services in the area surrounding the Airport. An exhibit will be developed identifying the Airport utility lines, connection locations, and line sizing for use in planning required utility connections for future facility expansion projects.

The stormwater management systems/facilities will be assessed/inspected to document the functionality, condition, and potential deficiencies. Airport stormwater facilities will be depicted either on the utility exhibit or a separate stormwater exhibit. This task does not include analysis and reporting to the level of stormwater permitting.

1A.7 SOCIOECONOMIC DATA

This subtask will consist of the definition of the Airport's catchment area and the assembly of historical and forecast socioeconomic data (employment, population, personal income, gross regional product) for the region and the nation. This will include data from the U.S. Census Bureau, regional economic development organizations, regional and national socio-economic data sourced through Woods & Poole Economics, Inc., and other relevant sources.

1A.8 ENVIRONMENTAL CONDITIONS

The Ricondo Team will assemble existing datasets and documentation of environmental resources at COI and the surrounding environment and provide an initial assessment of their influence on airport development. The Ricondo Team will identify the existing conditions of environmental resource categories defined in FAA Order 1050.1F, *Environmental Impacts: Policies and Procedures* Desk Reference that are relevant to future development at COI. Based on known conditions, the following categories would be included in the Inventory:

- Air Quality – general discussion of status of attainment relative to the National Ambient Air Quality Standards for the airport region and considerations for future development.
- Biological Resources – general discussion of biological resources, including federal endangered and threatened species, potentially present on airport property, as identified in previous National Environmental Policy Act (NEPA) documents, the Wildlife Hazard Management Plans, etc.
- Coastal Resources – general discussion of coastal resources and policies relevant to airport development.
- Section 4(f) Resources – general review for the presence of Section 4(f) resources adjacent to airport property, through collection of GIS datasets available online and previous airport NEPA documents.
- Hazardous Materials – general review of previously identified hazardous materials issues at the airport, such as issues documented in previous NEPA documents.
- Historical, Archaeological, Architectural, and Cultural Resources – general review of cultural resources from available airport resources, such as previous NEPA documents.
- Natural Resources and Energy Supply – general discussion of natural resource and energy use, based on information tracked and reported for the airport, if available.
- Noise and Noise-Compatible Land Use – provide a general characterization of aircraft noise based on the most recent airport noise contours.
- Socioeconomics and Environmental Justice: review socioeconomic characteristics of surrounding communities to identify the potential presence of minority or environmental justice populations.
- Water Resources (wetland, floodplains, surface waters, groundwater): collect water resource mapping from the Airport Authority and supplement with mapping available through online resources such as the National Wetland Inventory, Federal Emergency Management Agency. No wetland delineation field surveys are included as part of this scope of services.

Available data from previous studies and information accessible from agencies and other public sources will be relied upon as the basis for this effort. It is assumed that the TCAA will share previous NEPA documents for the airport that will summarize relevant issues, and provide resource mapping, as available. Resources will be mapped on an overview of environmental considerations exhibit for inclusion in the Inventory of Existing Conditions section and use in evaluating master plan alternatives, if applicable. Federal, state, and local permits required for environmental resources will be identified and briefly summarized. Brief discussions of the existing conditions for each resource category will also be provided in the Inventory of Existing Conditions section.

NOTE: The fee estimate is based on preparation of the existing environmental conditions section in the Inventory chapter concurrent with the same tasks for the TIX and X21 MPUs. The concurrent approach

enables efficiency because the Ricondo Team would collect and analyze data for all three airports once from each agency concurrently, rather than conducting three separate efforts.

1A.9 TENANT SURVEYS

A tenant interview questionnaire/survey will be prepared and distributed to existing Airport tenants electronically via a web-based survey. The purpose of the survey is to obtain feedback and input on tenants' existing operations and activities, tenant recommended improvements, potential changes in tenants' business models such as aircraft fleet changes, and tenants' recommendations of items to be addressed in the MPU. The survey will be reviewed and approved by TCAA staff prior to distribution. The survey will be available for tenant input for up to thirty days. At the end of the survey response period, the Ricondo Team will compile the responses tabularly and summarize key or recurring themes with up to three PowerPoint slides.

1A.10 PREPARE DRAFT WORKING PAPER

A draft Inventory of Existing Conditions working paper summarizing the findings of each of the preceding tasks will be prepared and provided to Airport staff for their review. The Ricondo Team will prepare exhibits (as applicable) to clarify and summarize the various items addressed in the inventory section. The draft working paper will be delivered to the Airport and other stakeholders (at the Airport staff's request) in Adobe Portable Document Format (PDF).

It is anticipated that Airport staff will review the draft working paper and provide comments to the Ricondo Team. Comments on the draft working paper will be addressed and responded to as appropriate and included in the final master plan report. A comment tracker, used throughout the MPU, will be developed to manage comments and responses. No supplemental draft will be issued.

1A.11 MEETINGS

It is anticipated that one (1) site visit will be conducted as part of the Inventory of Existing Conditions. The site visit will occur on the same day as the project kickoff meeting (Task 13.3.1). The purpose of the site visit is for the Ricondo Team to collect pertinent information, discuss the condition of the various facilities with TCAA staff, and photograph key facilities for inclusion into the working paper. The site visit will be attended by up to two (2) members of the Ricondo Team and is anticipated to last up to six (6) hours.

Exclusions

- Architectural/engineering assessments of facility conditions
- Surveying of leaseholds and utilities
- Aircraft operations and vehicular traffic counts
- Re-creation of existing conditions exhibits or drawings in AutoCAD
- Agency outreach beyond the collection of readily available public data
- Collecting the Environmental Resource Permit (ERP) of each specific stormwater system
- Photographs, estimated capacities, and recommendations of stormwater system components

TASK 1B. EMERGING TRENDS AND TECHNOLOGIES

1B.1 EMERGING TRENDS AND TECHNOLOGIES

This task includes research and review of data related to emerging trends and technology systems that may have changed since completion of the 2005 MPU and those that may continue to change in the future. Representative topics that may influence the GA sector in the Space Coast region and overall industry to be discussed include the following:

- Advanced air mobility (AAM)
- GA fleet demographics (including electric aircraft) and industry trends
- Airspace considerations including NextGen and other technologies (including remote towers)
- Fuel cost and alternative fuel trends
- Airport development and funding trends
- Aerospace manufacturing and maintenance, repair, and overhaul trends

1B.2 REVIEW OF GENERAL AVIATION INDUSTRY TRENDS AND FACTORS AFFECTING DEMAND

This subtask will comprise a review of national general aviation trends based on the FAA Aerospace Forecasts FY 2021-2041, the General Aviation Statistical Databook & Industry Outlook from the General Aviation Manufacturers Association (GAMA), and the general aviation trends in the Central Florida and East Central Florida regions. The data collected under this subtask will help assess local and nationwide short- and long-term trends, including projections of active general aviation aircraft by type. In turn, these projections will be evaluated to assess whether these trends are likely to influence future general aviation aircraft fleet mix projections at the Airport.

This information will be summarized and documented as part of the Aviation Activity Forecasts (Task 3). For budgeting purposes, the fee for the research, data review, and documentation will be part of this task.

Meetings

There are no meetings anticipated as part of this task.

Exclusions

- Online and in-person surveys
- Benchmarking of other airports

NOTE: The research and summary information developed as part of this task will also be used in the Space Coast Regional Airport (TIX) and Arthur Dunn Airpark (X21) MPUs. The fee for this task has been spread evenly among the three MPUs.

TASK 1C. VISIONING SESSION WITH TCAA BOARD MEMBERS

1C.1 VISIONING SESSION

This task includes the Ricondo Team facilitating one (1) visioning session with TCAA board members to develop a long range, forward looking, and unconstrained visualization of each airport's evolution over a long-term period to guide the identification of goals and objectives for each airport and help identify or redefine (if applicable) TCAA's long range strategic framework. This task would also serve to establish key considerations by which alternatives would be developed, evaluated, and refined in subsequent sections of the master plan.

For budgeting purposes, the visioning session is anticipated to last up to three (3) hours and be conducted by up to three (3) members of the Ricondo Team. A PowerPoint presentation will be developed to guide the discussion.

The results of the visioning sessions will be summarized in a PowerPoint presentation that highlights key themes identified by the stakeholders, as well as goals and objectives developed to guide the master planning process. This summary presentation will be provided to TCAA staff for review and comment and presented to the TCAA Board Members as part of Task 1D.

Exclusions

- Visioning sessions with tenants and other stakeholders

NOTE: The visioning session with the TCAA Board Members will also include discussions related to TIX and X21. For budgeting purposes, the fee for this effort has been spread across the three MPUs.

TASK 1D. STRENGTHS AND OPPORTUNITIES ASSESSMENT

1D.1 STRENGTHS AND OPPORTUNITIES ASSESSMENT

This task will leverage information collected as part of Task 1C and develop a strengths and opportunities assessment for the airport that focuses on the Airport's unique strengths and potential opportunities for business expansion or diversification to help guide the strategic development and enhance the overall value of the airport's assets. The Ricondo Team will utilize the results of this analysis to identify key drivers affecting activity levels, types of services and activities accommodated, and availability of developable space and facilities. The Airport's existing role, as well as the potential opportunities for an expanded or evolving role, within the TCAA system, would also be considered in close coordination with the TCAA as part of this task. The previously completed strengths, weaknesses, opportunities, and threat analysis developed as part of the Airport's existing Strategic Business Plan will be reviewed as part of this subtask. The strengths and opportunities assessment will be summarized and documented in a PowerPoint presentation.

1D.2 MEETINGS

This task includes up to two (2) meetings to present the findings and a summary of the strengths and opportunities assessment and visioning session (Task 1C). One meeting will be held with TCAA staff and one meeting with the TCAA Board Members. For budgeting purposes, it is anticipated that each meeting will last up to two (2) hours and be attended by up to two (2) members of the Ricondo Team. The Ricondo Team will prepare and distribute a summary of action items for the meeting with TCAA staff. Meeting minutes for the TCAA Board Member discussion will be prepared by TCAA staff (as part of the regularly scheduled Board Meeting).

Exclusions

- Development of a separate, stand-alone Strategic Plan Summary Report or White Paper
- Benchmarking of other airports or systems of airports

NOTE: This task includes a discussion of the visioning session (Task 1C) and strengths and opportunities assessment for COI, TIX, and X21. For budgeting, purposes the fee for this effort has been spread among the MPUs.

TASK 1E. STAKEHOLDER AND PUBLIC INVOLVEMENT

The purpose of the Stakeholder and Public Involvement Program is to engage TCAA, airport stakeholders, and tenants in the MPU process. The program is designed to be inclusive and create an environment that promotes meaningful dialogue and opportunities to actively participate in the MPU process. The subsequent sections detail the efforts associated with conducting the Stakeholder and Public Involvement Program. The presentation materials created and/or collected as part of this task will be included in an appendix of MPU.

1E.1 TECHNICAL ADVISORY PANEL

A Technical Advisory Panel (TAP), consisting of up to twenty individuals, will be formed to provide input and insight on existing and planned facilities, infrastructure, and aircraft operations and other activity information. The TAP will be tasked with reviewing and analyzing MPU's technical analyses, interacting with the planning team members during the meetings, and making recommendations to the planning team. Panel members could include but are not limited to: TCAA board members and staff, major airport tenants (FBOs, flight school, hangar tenants, etc.), FAA, FDOT, and representatives from nearby counties and municipalities. As suggested by the title, the TAP is advisory in nature and does not have official decision-making power.

1E.1.1 PREPARE BRIEFING MATERIALS

This subtask includes the preparation of briefing materials for three (3) TAP briefings. Briefing materials prepared for the TAP will include the development of discussion materials highlighting key takeaways from the draft MPU material, the methodologies involved in the development of the material, and MPU status updates. The Ricondo Team will develop briefing materials in the form of PowerPoint presentations. This subtask also includes the preparation and distribution of meeting minutes.

1E.1.2 ATTEND AND MODERATE TECHNICAL ADVISORY PANEL BRIEFINGS

The TAP briefings will be attended by up to two (2) members of the Ricondo Team. It is anticipated these meetings will take place in the TCAA conference room and last up to two (2) hours. The Ricondo Team will present briefing material discussed in the previous subsection, present preliminary MPU material, and obtain consensus on key decisions. An email invitation will be distributed to each committee member at least two weeks prior to each meeting.

1E.2 CITIZENS ADVISORY PANEL

A Citizens Advisory Panel (CAP) will be developed to serve as a sounding board and information exchange group for the general public and other stakeholders. The CAP will review the planning team's plans and proposals, interact with the planning team members during meetings, and provides recommendations to the planning team, and TCAA staff. Panel members, to be identified by the TCAA, could include, but are not limited to citizens, representatives from nearby homeowners' associations, public officials, and business leaders (economic development groups, chambers of commerce, etc.). The CAP will weigh the recommendations against community goals, values, and needs. The CAP is advisory in nature would have no decision-making power of their own.

1E.2.1 PREPARE BRIEFING MATERIALS

This subtask includes the preparation of briefing materials for the three (3) CAP briefings. Briefing material prepared for the CAP will include discussion materials highlighting key takeaways from the draft MPU material, the methodologies involved in the development of the material, and MPU status updates. The Ricondo Team will

develop briefing materials in the form of PowerPoint presentations. This subtask also includes the preparation and distribution of meeting minutes.

1E.2.2 ATTEND AND MODERATE CITIZENS ADVISORY PANEL BRIEFINGS

The CAP briefings will be attended by up to two (2) members of the Ricondo Team. It is anticipated these meetings will take place in the TCAA conference room and last up to two (2) hours. The Ricondo team will present briefing material discussed in the previous subsection, present preliminary MPU material, and obtain consensus on key decisions. An email invitation will be distributed to each committee member at least two weeks prior to each meeting.

NOTE: For budgeting purposes, it is anticipated that the TAP and CAP meetings will occur on the same day.

1E.3 TITUSVILLE-COCOA AIRPORT AUTHORITY WORKSHOPS

The TCAA's strategic initiatives and vision for the Airport will be used to guide and inform the MPU process. A critical element of the planning process is to obtain feedback and input from the TCAA to ensure the Recommended Airport Improvement Plan aligns with TCAA's strategic initiatives and vision.

1E.3.1 PREPARE WORKSHOP MATERIALS

This subtask will include two (2) workshops that provide an opportunity for the TCAA to review and comment on the MPU's technical analysis, alternatives, Recommended Airport Improvement Plan, and CIP. The Ricondo Team will develop workshop materials that will guide discussion and feedback. Workshop materials may be in the form of display boards and/or PowerPoint presentations. This subtask also includes the preparation and distribution of meeting minutes.

1E.3.2 CONDUCT WORKSHOPS

Two (2) workshops are budgeted to facilitate coordination, consistency, obtain direction, and make key decisions prior to the development of MPU draft chapters. For budgeting purposes, it has been assumed that up to three (3) members of the Ricondo Team would participate in each of the two (2) workshops. Each workshop is anticipated to last approximately two (2) hours.

NOTE: For budgeting purposes, it is anticipated that the TCAA workshops will be held on the same day as the workshops for the TIX and X21 master plan. The fee for subtask 1E.3.2 will be spread evenly among the three MPUs.

1E.4 TITUSVILLE-COCOA AIRPORT AUTHORITY BRIEFINGS

1E.4.1 PREPARE BRIEFING MATERIALS

The board members of the TCAA will be briefed on the progress of the MPU during key milestones, such as near the end of the development of the Aviation Activity Forecasts (Task 3A) and the midpoint of the Financial Plan (Task 8). Briefing materials prepared for the TCAA briefings will include the development of discussion materials highlighting key takeaways from the draft MPU material, the methodologies involved in the development of the draft and preliminary material, and MPU status updates. The Ricondo Team will develop briefing materials in the form of PowerPoint presentations.

1E.4.2 ATTEND BOARD MEETINGS AND CONDUCT BRIEFINGS

This subtask will include the Ricondo Team's attendance at up to two (2) regularly scheduled board meetings to present the briefing materials discussed in the previous subsection, present preliminary and draft MPU materials, and obtain feedback and comments from the TCAA. The TCAA Board Meetings are open to the public and will provide an opportunity for the TCAA and the Ricondo Team to receive public comments and feedback on the MPU.

For budgeting purposes, it has been assumed that up to two (2) members of the Ricondo Team would participate in each of the two (2) briefings. Each board meeting is anticipated to last approximately two (2) hours.

NOTE: For budgeting purposes, it is anticipated that the TCAA briefings will be held on the same day as the briefings for the TIX and X21 master plan. The fee for subtask 1E.4.2 will be spread evenly among the three MPUs.

1E.5 PUBLIC WORKSHOPS

1E.5.1 PREPARE WORKSHOP MATERIALS

Two (2) public workshops, in an open house format, will be conducted to brief residents and interested stakeholders about the project and to receive public comments. The workshops are tentatively scheduled to occur following the completion of the Demand/Capacity Analysis and Facility Requirements and prior to the Final MPU submittal. The Ricondo Team will prepare briefing materials for the public workshops and will have appropriate personnel in attendance to respond to questions and comments from the public. The Ricondo Team will prepare the meeting notice for mailing to the public and the meeting advertisement for publication. The Ricondo Team will prepare and collect comment forms and will review and summarize the comments.

1E.5.2 ATTEND PUBLIC WORKSHOPS

Up to three (3) members of the Ricondo Team will attend each of these meetings and participate in the role desired and requested by TCAA staff. For budgeting purposes, it is assumed that each workshop will last up to three (3) hours. This task will also include for each workshop a meeting summary including copies of sign-in sheets, comment cards collected, and a summary of action items/consensus items.

Exclusions

- Development of videos and multimedia presentations
- Individual meetings and agency outreach

TASK 2. AERIAL SURVEYING AND MAPPING

The Ricondo Team will provide spatial data collection, photogrammetry, and mapping services in support of an ALP. This proposal also includes tasks required to comply with FAA Airports survey program standards. All survey and photogrammetry work will be accomplished in accordance with the following ACs:

- AC 150/5300-16B: General Guidance and Specifications for Aeronautical Surveys: Establishment of Geodetic Control and Submission to the National Geodetic Survey
- AC 150/5300-17C: Standards for Using Remote Sensing Technologies in Airport Surveys
- AC 150/5300-18B: General Guidance and Specifications for Submission of Aeronautical Surveys to NGS: Field Data Collection and Geographic Information System (GIS) Standards

The objective for this task is to collect and submit safety critical data for the Airport in a format that is recognized by FAA. Base-mapping (planimetric & topographic data) collected in support of the ALP update will be formatted and submitted to the Airport Data and Information Portal (ADIP). This task will also include an Airport Airspace Analysis for the existing runway, a NAVAID inventory and survey, a runway ends/thresholds and profiles survey, and the collection (through remote sensing) of planimetric & topographic data. The Ricondo Team will fulfill the data collection, formatting, delivery, and process requirements of the FAA AGIS program.

In general, the Ricondo Team's approach to fulfilling the GIS requirements will consist in completing the tasks outlined in Table 2-1 (Survey Requirements Matrix) of FAA AC 150/5300-18B, Column "Airport Layout Plan." The Ricondo Team will be responsible for coordinating and submitting AGIS deliverables to FAA.

2.1 PROJECT PLANNING / FAA AIRPORTS-GIS COORDINATION / FIELD-SURVEY CONSULTATION

This task includes the development, submission, and approval of the "Statement of Work" for the project through the FAA Airports District Office (ADO) and FAA AGIS staff. The Ricondo Team will also develop, submit, and obtain the approval of the "Imagery/Remote Sensing Plan" and the "Survey & Quality Control Plan" required by the FAA.

2.2 IMAGERY ACQUISITION (FLIGHT MISSION)

New color aerial imagery will be captured utilizing a digital photogrammetric camera for all areas defined in the Project Area Definition section of the proposal found within Appendix D. The aerial imagery acquisition flight mission will be executed in accordance with all guidelines and specifications within FAA AC 150/5300-17C. The aerial imagery acquisition flight mission will consist of one "block" of imagery, collected to the following specifications:

- Imagery Resolution: 10 cm
- Imagery Purpose/Use: This imagery will be utilized for all photogrammetric data extraction, including airfield planimetric/topographic mapping and AGIS/Part 77/TSS Airport Airspace Analysis. 0.50' GSD orthophotos will be generated from this imagery.

Upon completion of the flight mission, the imagery will be reviewed through in-house quality assurance procedures for photogrammetric acceptability and compliance with AC 150/5300-17C requirements.

NOTE: The fee estimate for imagery acquisition assumes that TIX, COI, and X21 will be flown on same flight mission.

2.3 AERO-TRIANGULATION

The digital aerial imagery will be imported onto a digital photogrammetric workstation where it will be oriented with field-surveyed ground control. This procedure will establish both horizontal and vertical control for orienting individual photogrammetric models.

2.4 ORTHOPHOTO PRODUCTION

Digital orthophotos will be produced to meet the project's needs and to comply with the requirements of the FAA AGIS program and AC 150/5300-17C. One set of ortho imagery will be produced covering Area B illustrated in Appendix D and meeting a Ground Sampling Distance (GSD) resolution of 0.50 feet.

2.5 PLANIMETRIC/TOPOGRAPHIC MAPPING

Utilizing the aero-triangulated digital imagery, photographic stereo pairs will be oriented and compiled on digital photogrammetric workstations within Area A illustrated in Appendix D. The mapping data will be compiled meeting the following specifications:

- Planimetric data scale – 1 inch = 200 feet
- Topographic data scale – 2-foot contour interval

2.6 AIRSPACE ANALYSIS/OBSTRUCTION SURVEY

An airport airspace analysis and obstruction survey will be completed for COI. Obstacle data collection (and subsequent submission) will be accomplished in accordance with relevant sections of AC 150/5300-18B, Section 2.7.1 and the FAA's Airport Airspace Analysis Checklist. This effort includes a Part 77 surface and obstacle clearance surface (OCS) survey that will be performed by analyzing the digital 3D stereo imagery. Natural and manmade objects penetrating the surfaces including, but not limited to buildings, utility poles, antennas, towers, and prominent objects will be collected (small objects, such as mailboxes, posts, and utility boxes will be ignored) and identified. For vegetation, singular trees/shrubs will be collected to the extent possible/feasible. In large areas of dense vegetation, a bounding polygon will be drawn to show the extents of the dense area. A 100-foot grid will be applied to the defined limit, and the highest vegetation point within each grid-sector will be collected.

2.7 MAPPING EDIT AND GIS FORMATTING/FAA COMPLIANCE

In addition to generating mapping data in AutoCAD format, all collected data will be edited and formatted in the appropriate FAA AGIS format. In terms of GIS attributes, the Ricondo Team will be responsible for populating all geospatial-related and/or critical attributes required for upload. The final AGIS file created by the Ricondo Team will include both Safety-Critical and Non-Safety-Critical data including:

- Safety-Critical
 - Airport Airspace Analysis Data (Obstructions)
 - Runway Survey Data

- NAVAID Survey Data
- Non-Safety-Critical
 - Planimetric Data
 - Topographic Data

Final GIS data will meet the following specifications:

- GIS Data Model - FAA Airports-GIS (AC 150/5300-18B, Chapter 5)
- GIS Delivery Format - ArcGIS Shapefile

2.8 FIELD-SURVEY SERVICES

2.8.1 ESTABLISH GEODETIC CONTROL / VALIDATE EXISTING PACS / SACS

There is currently one Primary Airport Control Station (PACS) monument and two Secondary Airport Control Stations (SACS) monuments published in the National Geodetic Survey (NGS) database for the Airport. Surveyors will validate/utilize these monuments to serve as the project tie to the National Spatial Reference System (NSRS). If the existing PACS/SACS monuments are determined to be damaged or the validation is unsuccessful, the surveyors will establish temporary geodetic control points, as required. Geodetic data will be tied to the NSRS using the latest published adjustment (2011). In addition to the PACS and SACS, this subtask will include the surveying of up to five (5) additional survey monuments. The approximate location of the survey monuments will be provided by TCAA staff.

Photo-identifiable features will be selected and surveyed for use as imagery ground control. Imagery Control will be surveyed (properly tied to NSRS) and documented in accordance with AC 150/5300-17C and FAA Airports-GIS requirements. Ground control data and documentation will be submitted to FAA Airports-GIS along with the Aerial Photography Acquisition Report. It is anticipated that approximately 26 imagery control points will be required, along with 5 independent Online Positioning User System (OPUS) checkpoints.

2.8.2 RUNWAY SURVEYS

Survey tasks will include a survey of runway-endpoints, displaced-thresholds, and runway-profiles. For each runway-endpoint and displaced-threshold, a monument will be set (or recovered), surveyed, and documented in accordance with AC-150/5300-18B. Runway-centerline-profiles will be surveyed at a 25-foot interval utilizing mobile-RTK methodology. Multiple passes in opposite directions will be accomplished of the entire runway length for quality assurance purposes. Final profile data will be reduced to 50-foot stations. Runway survey data will be utilized for the Airport Airspace Analysis/Obstruction Surveys task. Runway survey data will be properly formatted by the Ricondo Team and reported in the FAA AGIS deliverable

2.8.3 NAVAID SURVEYS

Surveyors will accomplish field-survey of NAVAIDs associated with COI. Each NAVAID will be surveyed and documented in accordance with AC-150/5300-18B. NAVAID survey data will be formatted by the Ricondo Team and reported in the FAA Airports-GIS deliverable.

Exclusions

- Development of 3D models

- Acquisition of light detection or ranging (LIDAR) data

TASK 3. AVIATION ACTIVITY FORECASTS

The purpose of this task is to develop aviation activity forecasts for the Airport, taking into consideration socioeconomic factors, local and national general aviation trends, and demand characteristics at the Airport. New activity forecasts will be derived based on recent historical demand patterns, trends experienced at the Airport, and the potential range of changes in aviation activity at the Airport that could occur over the 20-year planning horizon.

3.1 ANALYSIS OF HISTORICAL ACTIVITY PATTERNS

This subtask will include the collection and analysis of historical activity at the Airport. Data on historical aircraft operations and based aircraft for a ten-year period commencing in fiscal year (FY) 2011 and ending in FY 2021 will be assembled from various sources, including airport activity records, the Airport's Virtower system, and FAA databases. This data will be used to measure and analyze historical activity patterns. The analysis will serve to identify the drivers of historical activity and determine which of those drivers may be indicative of future activity at the Airport. Virtual meeting discussions with the Airport's FBOs will also be conducted to identify any additional emerging trends.

3.2 DEVELOP AVIATION ACTIVITY FORECASTS

The forecasts will be prepared using FAA-accepted methodologies (econometric modeling, market share, and trend analyses) for the period from FY 2023 through FY 2043. These forecasts will be compared against other forecasts recently prepared for COI, such as the FAA's 2021 Terminal Area Forecasts (TAF) published in March 2022 (or the most current TAF available at the time the forecasts are prepared) and the Florida Aviation System 2035 Update. Activity projections will be provided for each year of the projection period and will include individual projections of the following:

- Annual General Aviation Operations (Local vs. Itinerant)
- Annual Military Operations (Local vs. Itinerant)
- Annual Instrument Operations
- Total Annual Aircraft Operations
- Annual Operational Fleet Mix by Aircraft Type (Piston, Turboprop, Others)
- Annual Operational Fleet Mix by Aircraft Approach Category (AAC) and Airplane Design Group (ADG)
- Based Aircraft Fleet Mix (Piston, Turboprop, Others)

As part of this task, the Ricondo Team will also prepare supplemental documentation comparing the FAA TAF and the COI MPU forecasts.

3.3 IDENTIFY CRITICAL AIRCRAFT

This task includes the background research and data collection necessary to identify the "critical aircraft" or "critical design aircraft" for the base year and throughout the planning period. The critical aircraft will be used to evaluate the FAA design criteria detailed in Task 4, develop subsequent airfield alternatives, and, as necessary, reevaluate existing operational restrictions. Information will be collected from the Airport's Virtower software and the FAA's Traffic Flow Management System Counts (TFMSC) database.

The critical aircraft will be determined by quantifying the most demanding aircraft with 500 or more annual itinerant operations that is currently using the Airport or could reasonably be expected to use the Airport during the planning period. The identification of the critical aircraft will provide justification for the identification of the Airport Reference Code (ARC), which is necessary for analysis in subsequent sections of MPU and for inclusion on the ALP

3.4 DELIVERABLES

3.4.1 PREPARE DRAFT WORKING PAPER

A draft Aviation Activity Forecasts working paper summarizing the findings of each of the preceding tasks will be prepared and provided to Airport staff for their review. The Ricondo Team will prepare exhibits (as applicable) to clarify and summarize the various items addressed in the forecasts section. The draft working paper will be delivered to the Airport and other stakeholders (at the Airport staff's request) in Adobe PDF.

It is anticipated that the Airport staff will review the draft working paper and provide comments to the Ricondo Team.

3.4.2 PREPARE FINAL WORKING PAPER

Upon receipt of comments from TCAA staff on the draft working paper, a final working paper will be prepared and submitted to the FAA Orlando ADO and FDOT for review and comment. FAA and FDOT comments will be addressed, the document will be revised, and the final version will be included in the MPU.

The final working paper will be delivered electronically to the Airport staff and other stakeholders electronically in Adobe PDF. Hard copies of the final working paper will be made available to the FAA and FDOT at their request.

3.5 MEETINGS

For budgeting purposes, it is anticipated that the Ricondo Team will participate in up to four (4) teleconferences as part of this subtask: two (2) with FBOs operating at the Airport, one (1) with TCAA staff, and one (1) with FAA/FDOT to discuss the results of the forecasts. Each of the four teleconferences are anticipated to last approximately two (2) hours and be attended by up to two (2) members of the Ricondo Team.

This subtask includes the preparation of an Executive Summary PowerPoint presentation outlining the methodologies and assumptions used to develop the forecasts, as well as a summary of the preferred forecast. A summary of action items will be developed following the meetings with TCAA and FAA/FDOT.

Exclusions

- Collection of aircraft operations counts
- Creation of a based aircraft list

TASK 4. DEMAND/CAPACITY ANALYSIS AND AIRPORT REQUIREMENTS

The following tasks will be completed in the development of the Demand/Capacity Analysis and Airport Requirements Section of the MPU.

4.1 AIRFIELD

4.1.1 AIRFIELD DEMAND/CAPACITY ASSESSMENT

Using the FAA's methodology for assessing airfield capacity and delay, as described in AC 150/5060-5, *Airport Capacity and Delay*, and other tools such as Airport Cooperative Research Program (ACRP) 79, *Evaluating Airfield Capacity*, an assessment of the current and future level of airfield capacity will be developed. This analysis will consider the airfield configuration, weather data and runway operating configurations, aircraft fleet mix, and current and 20-year forecast operations. The result of the assessment will be expressed in terms of the hourly and annual service volume of the airfield.

4.1.2 RUNWAY LENGTH REQUIREMENTS

Based on the projected aircraft fleet mix anticipated to utilize the Airport over the planning period, an analysis of runway length will be performed for up to four aircraft likely to utilize the Airport. This analysis will consider several operational variables, including ratios of maximum takeoff weight, maximum landing weight, runway conditions, and atmospheric conditions. Required weather data that is necessary for runway lengths will be obtained for COI from NOAA as mentioned previously in the inventory section. The results of the runway length calculations and requirements, as well as the required dimensional standards, will be incorporated into the Airport requirements portion of the MPU. This analysis will be conducted using the standards and guidelines contained in FAA AC 150/5325-4B, *Runway Length Requirements for Airport Design*.

4.1.3 AIRPORT REQUIREMENTS

Using the results of the demand/capacity analysis, as well as relevant information from other tasks and airfield planning criteria, a preliminary listing of airfield requirements necessary to meet projected levels of demand for the 5-, 10-, and 20-year planning horizons will be developed. These airfield requirements will be based upon both accepted airport planning criteria and the forecast of aviation activity for the Airport, as well as the knowledge and expertise of the Ricondo Team, TCAA staff, and TAP members. Airfield characteristics to be assessed include:

- Runway and taxiway geometry
- Necessity for addition/removal/modifications of taxiway connectors
- Pavement condition (based on existing PCI reports)
- Airfield service roads
- Airfield signage
- Lighting and markings
- NAVAIDs

Airfield needs will be identified in terms of linear feet, width, strength, separation, and clearance. The airfield pavement rehabilitation needs based on the pavement condition index (PCI) developed in the FDOT's *Statewide Airfield Pavement Management Program* will be discussed as part of the airfield requirements. Where appropriate, the airfield facilities will be linked to activity demand thresholds or triggers as a means of determining the point at which demand is sufficient to warrant the improvement.

4.2 GENERAL AVIATION AND FIXED BASE OPERATOR FACILITIES

An evaluation of current and future demand and capacity for general aviation facilities will be completed. The analysis will consider facility requirements for:

- Aircraft ramp and parking areas
- T-hangars/Corporate hangars/Box hangars
- Conventional hangar facilities
- FBO/GA terminals
- Aircraft maintenance and repair hangars
- Vehicle parking areas
- Fuel storage facilities

General aviation facility requirements will be identified as needed to meet projected levels of demand expressed in the forecast and based on the demand/capacity analysis for GA facilities. Facility requirements will be expressed in terms of gross area, linear feet, square feet, square yards, or other basic units to determine excess or deficient capacity. This assessment will quantify future development items needed to maintain an adequate capacity, function, and operational flexibility at the Airport. The analysis of general aviation facility requirements will also rely on feedback from the tenants to be obtained during the TAP meetings.

4.3 SUPPORT FACILITIES

Using pertinent FAA regulations, ACs, and information gained from discussions with TCAA staff and users, the Ricondo Team will determine the capacity of existing and establish future needs for the Airport administration and maintenance facilities and electrical vault. Security enhancements identified by TCAA staff and/or members of the TAP will also be discussed and presented in this task.

4.4 LANDSIDE FACILITIES

This task will focus on the on-airport road network and adjacent areas serving the tenant areas. On-airport roadway requirements will be based on future demand, and discussed in terms of number of traffic lanes, access points, and intersection congestion. Roadway requirements will be developed for immediate airport access roadways providing ingress/egress to the Airport facilities.

4.5 PREPARE DRAFT WORKING PAPER

A draft Demand/Capacity Analysis and Airport Requirements working paper summarizing the findings of each of the preceding tasks will be prepared and provided to Airport staff for their review. The Ricondo Team will prepare

exhibits as necessary to clarify and summarize the various items addressed in the requirements section. The draft working paper will be delivered to the Airport and other stakeholders (at the Airport staff's request) in Adobe PDF.

It is anticipated that Airport staff will review the draft working paper and provide comments to the Ricondo Team. Comments on the draft working paper will be addressed and responded to as appropriate and included in the final master plan report. A comment tracker, used throughout the MPU, will be developed to manage comments and responses. No supplemental draft will be issued.

4.6 MEETINGS

For budgeting purposes, it has been assumed that the Ricondo Team would participate in one (1) teleconference with TCAA staff during the duration of this task. The meeting is anticipated to last approximately two (2) hours and be attended by up to two (2) members of the Ricondo Team. This subtask includes the preparation of the PowerPoint presentation to support the meeting and the preparation and distribution of a summary of action items.

Exclusions

- Airfield and airspace simulations
- Landside simulations

TASK 5. FORMULATE ALTERNATIVES

The Ricondo Team will prepare and evaluate alternative airport development concepts to accommodate the range of requirements needed to satisfy forecast demand for the short-, intermediate-, and long-term planning periods. Subtasks to be completed as part of Task 5 are as follows:

5.1 AIRFIELD ALTERNATIVES

Airfield alternatives will be developed to accommodate future airfield capacity needs and address any substandard FAA design conditions discussed in Task 4. Based on the areas of taxiway geometry noncompliance identified in Task 4, the Ricondo Team will develop alternatives for taxiway modifications necessary to comply with the FAA's runway incursion mitigation program and enhancement of situational awareness techniques and standards included in FAA AC 150/5300-13B (e.g., provide indirect taxiway access from apron areas, implement the three-node concept, avoid wide expanses of pavement). Up to three (3) airfield alternative concepts will be developed for discussion with TCAA staff and stakeholders.

5.2 DEVELOP AND EVALUATE GENERAL AVIATION FACILITY CONCEPT PLANS

Based on the GA area facility requirements determined in Task 4, preliminary GA facility concept plans will be formulated. This subtask will include the creation of up to five (5) potential GA facility layouts which will be evaluated based on their efficiency in meeting identified facility requirements, ability to group tenants in the same general areas, ability to accommodate future aircraft types, ease of implementation, optimized land use, and environmental considerations.

5.3 DEVELOP SUPPORT FACILITY CONCEPT PLANS

Based on the support facility requirements determined in Task 4, preliminary support facility concept plans will be developed. The concept plans will be assessed based on the ability to serve forecast demand, expandability, and operational considerations. Up to three (3) support facility alternatives will be prepared as part of this task. The ongoing plans for new ATCT will be incorporated into the support facility concept plans.

5.4 DEVELOP OVERALL AIRPORT CAMPUS CONCEPT PLANS

Using the information collected during the Visioning Session and the Strengths and Opportunities Assessment, concepts plans for optimizing land use and development opportunities at the Airport would be created. Up to three (3) preliminary concept plans will be developed. These airport campus concepts plans will also include options for landside facility improvements. Landside facility improvement concepts will illustrate areas that could be improved to accommodate additional vehicular parking and/or increase vehicular circulation efficiency within the existing and proposed airport footprint. The concept plans will be assessed based on their ability to serve the projected demand, expandability, and operational and circulation considerations.

5.5 EVALUATE ALTERNATIVES/CONCEPTS

The Ricondo Team will conduct an evaluation of the development alternatives and concepts based on criteria developed through a dialogue between the Airport staff and the members of the TAP. These criteria could include, but are not limited to the following:

- ability of the alternative/concept to provide required capacity and/or capability
- potential environmental impacts
- land use optimization
- qualitative assessment of relative costs (using a comparative methodology between each set of alternatives)
- constructability/ease of implementation

Criteria may be weighted to reflect importance in the evaluation process. An evaluation matrix will be prepared to compare the various alternatives in terms of the evaluation criteria.

5.6 DEVELOP ROUGH ORDER OF MAGNITUDE COST ESTIMATES

Rough order of magnitude (ROM) cost estimates will be prepared for the preferred alternative/concept plan. The ROM costs will be used to assist in the phased implementation of the Recommended Airport Improvement Plan, and the evaluation of the ultimate scenario's feasibility. The ROM costs will be developed on a planning/conceptual nature and include design, engineering, administrative, and construction costs. For budgeting purposes, it is assumed this subtask will include the development of ROM cost estimates for up to 25 discrete projects that collectively comprise the Recommended Airport Improvement Plan.

5.7 PREPARE DRAFT WORKING PAPER

A draft Alternatives Analysis working paper summarizing the findings of each of the preceding tasks will be prepared and provided to Airport staff for their review. The Ricondo Team will prepare exhibits as necessary to clarify and summarize the various items addressed in the alternatives section. The draft working paper will be delivered to the Airport and other stakeholders (at the Airport staff's request) in Adobe PDF.

It is anticipated that Airport staff will review the draft working paper and provide comments to the Ricondo Team. Comments on the draft working paper will be addressed and responded to as appropriate and included in the final master plan report. A comment tracker, used throughout the MPU, will be developed to manage comments and responses. No supplemental draft will be issued.

5.8 MEETINGS

For budgeting purposes, it has been assumed that the Ricondo Team would participate in up to two (2) on-site meetings with TCAA staff during the duration of this task. The meeting is anticipated to last approximately two (2) hours and be attended by two (2) members of the Ricondo Team. This subtask also includes the preparation and distribution of a summary of action items.

Exclusions

- 3-D renderings or visual animations
- Airfield simulations

TASK 6. ENVIRONMENTAL OVERVIEW

6.1 EVALUATION OF PROPOSED DEVELOPMENT

Prior to the implementation of Recommended Airport Improvement Plan projects, the potential environmental effects of each project must be reviewed in accordance with the National Environmental Policy Act (NEPA). The Environmental Overview, therefore, provides a summary of environmental review considerations related to the set of Recommended Airport Improvement Plan projects identified in the MPU to support the development of an environmental processing strategy for master plan projects. The environmental overview will include:

- An overview of NEPA processing
- Review of the Recommended Airport Improvement Plan projects for potential eligibility for categorical exclusion under NEPA
- Review of environmental considerations for the Recommended Airport Improvement Plan projects based on environmental resources identified in the environmental inventory (Task 1A.7) (e.g., biological resources, Section 4(f) resources, hazardous materials, cultural resources, land use, natural resources and energy supply, noise and compatible land use, and water resources)
- Discussion of NEPA processing strategy and general discussion of applicable environmental permits

The Environmental Overview will not include detailed analyses of environmental impacts (such as preparation of categorical exclusion documentation or environmental assessments for specific projects) or assess whether the impacts would be considered significant under NEPA. Rather, it provides a guide to support future environmental review of MPU projects.

This task will culminate with the development of an Environmental Overview working paper that will be submitted to TCAA staff for review and comments.

6.2 AIRPORT RECYCLING, REUSE, AND WASTE REDUCTION PLAN

The Ricondo Team will prepare an Airport Recycling, Reuse, and Waste Reduction Plan, to be included as an appendix to the MPU.

In support of defining existing conditions, the Ricondo Team would coordinate a conference call with TCAA airport staff to define existing waste management conditions. The existing conditions discussion will document existing waste management practices, that would include, as available: types of waste generated at TCAA controlled facilities, waste infrastructure, waste collection practices and logistics, TCAA waste collection responsibilities, waste management contracts, recycling and landfill costs, and recycling feasibility. The Ricondo Team will prepare a data collection list and share it with TCAA staff in advance of the conference call.

This appendix will include a more detailed discussion of the waste baselining, goal statement development, and initiatives identification elements specific to the topic of waste, to meet FAA guidance for Airport Recycling, Reuse, and Waste Reduction Plans.¹

¹ US Department of Transportation, Federal Aviation Administration, memorandum to Regional Airport Division Managers, "ACTION: Guidance on Airport Recycling, Reuse, and Waste Reduction Plans," September 30, 2014.

This task will focus on the recycling, reuse, and reduction of waste that can be legally disposed of in a landfill or equivalent state-permitted facility, including municipal solid waste (everyday waste items), construction and demolition (C&D) debris, and compostable waste (food and green waste). Other types of waste, such as hazardous waste, universal waste, industrial waste, and deplaned international waste are disposed of and recycled in accordance with federal, state, and local laws, as such, they are **not** subject to FAA's airport recycling, reuse, and waste reduction plan guidance nor are they included in this scope of services.

NOTE: The fee estimate is based on concurrent waste planning for the TIX and X21 MPUs, and the assumption that the TCAA manages limited facilities (non-passenger facilities). The TCAA-managed facilities do not generate significant municipal solid waste streams, so a high-level review will be completed for all three airports simultaneously.

6.3 PREPARE DRAFT WORKING PAPER

A draft Environmental Overview working paper summarizing the findings of each of the preceding tasks will be prepared and provided to Airport staff for their review. The Ricondo Team will prepare exhibits (as applicable) to clarify and summarize the various items addressed in the environmental section along with an Appendix containing the Airport Recycling, Reuse, and Waste Reduction Plan. The draft working paper will be delivered to the Airport and other stakeholders (at the Airport staff's request) in Adobe PDF.

It is anticipated that Airport staff will review the draft working paper and provide comments to the Ricondo Team. Comments on the draft working paper will be addressed and responded to as appropriate and included in the final master plan report. A comment tracker, used throughout the MPU, will be developed to manage comments and responses. No supplemental draft will be issued.

6.4 MEETINGS

For budgeting purposes, it has been assumed that the Ricondo Team would participate in one (1) teleconference with TCAA staff during the duration of this task. The meeting is anticipated to last approximately two (2) hours and be attended by up to two (2) members of the Ricondo Team. This subtask includes the preparation of the PowerPoint presentation to support the meeting and the preparation and distribution of a summary of action items.

Exclusions

- Additional presentations, workshops, etc., to further vet or gain TCAA approval of draft goal statements and initiatives beyond two rounds identified in this scope.
- Sustainability Management Plan

TASK 7. CAPITAL IMPROVEMENT PROGRAM

The Recommended Airport Improvement Plan will be organized into distinct projects and phased over the over the twenty-year planning horizon. The CIP will be coordinated with TCAA staff and the existing CIP to include both currently programmed and MPU related capital improvements for the Airport.

The development schedule will be based on the improvements needed to satisfy demand at the short-, intermediate-, and long-term activity levels and timeframes. Individual development projects will be phased to allow improvements to be designed and constructed and to account for FAA/FDOT grant cycles. The phasing process will be an iterative process with the financial plan to ensure that the CIP is both implementable and economically feasible.

7.1 VALIDATION AND REPROGRAMMING OF EXISTING FIVE-YEAR CIP

The existing CIP was originally defined as part of the MPU completed in 2009. As a part of this task, the Ricondo Team will review the Airports existing five-year CIP with TCAA staff and reprioritize/reprogram projects given the existing operational demand and federal and state funding eligibility criteria and potential based upon current regulatory guidance. The CIP will be evaluated from system wide perspective and include consideration for projects at TIX and X21. The end product for this sub-task will be a revised five-year CIP provided in tabular form.

7.2 COORDINATE PROJECT SEQUENCING

Project sequencing will be discussed and reviewed with TCAA staff to identify the recommended short-, intermediate-, and long-term capital improvement projects to comprise the CIP list. The anticipated sequence for each project will be based on the improvements needed to satisfy demand during the planning periods and prerequisite project requirements where necessary. The various facility development projects will be prioritized and correlated with the staging plans for the Recommended Airport Improvement Plan resulting from the selected alternatives. The CIP phasing will be determined for the short- (0-5 years), intermediate- (6-10 years), and long-term (11-20 years) planning periods.

7.3 DEVELOP CIP AND FUNDING SOURCES

This subtask includes an overview of the various funding sources available for each project identified in the previous subtasks and color-coded drawings illustrating recommended phasing for project implementation to satisfy the needs of short-, intermediate-, and long- forecast of aviation demand. This subtask will also identify reasonable annual funding levels that can be used for financial planning purposes for each funding source identified, recognizing that funding eligibility does not equate to what can reasonable be anticipated as annual funding allocations. The CIP will be summarized in tabular format and organized by year and include the project name, escalated project cost, and potential funding sources. Short- and intermediate-term projects will be separated into design and construction (as appropriate) and long-term projects will be presented as a total cost, inclusive of design and construction.

7.4 PREPARE DRAFT PROJECT SUMMARIES AND EXHIBITS

This task will include the development of graphic exhibits depicting the proposed capital improvement projects for up to 25 projects. In addition, summary sheets will be developed for each project in the short- and intermediate-

term planning periods. The summary sheets will facilitate the future programming of each project in the Joint Automated Capital Improvement Program (JACIP) for the Airport. It is anticipated the project summary sheets will include the following information:

- Name of and a brief description of the project
- Project justification: a brief explanation of why the project is needed
- Site information: Location map indicating the project location and clarifying limits of development/construction
- Projected timing (short- or intermediate-term) or demand trigger (if applicable)
- ROM cost for the proposed project including unit costs for civil line items and percentages for electrical and drainage items; costs will also be escalated accordingly
- FAA's National Priority Rating
- Source of funds: anticipated sources of funding for the projects
- Environmental documentation: identification of the type of environmental documentation (categorical exclusion, EA, or EIS) expected

7.5 PREPARE DRAFT WORKING PAPER

A draft CIP working paper summarizing the findings of each of the preceding tasks will be prepared and provided to Airport staff for their review. The draft working paper will be delivered to the Airport and other stakeholders (at the Airport staff's request) in Adobe PDF.

It is anticipated that Airport staff will review the draft working paper and provide comments to the Ricondo Team. Comments on the draft working paper will be addressed and responded to as appropriate and included in the final master plan report. A comment tracker, used throughout the MPU, will be developed to manage comments and responses. No supplemental draft will be issued.

7.6 MEETINGS

For budgeting purposes, it is assumed that the Ricondo Team would participate in up to two (2) meetings as part of this task. One meeting will be a teleconference using Microsoft Teams, or similar software, and one meeting will be in person at the TCAA office. For budgeting purposes, each meeting is anticipated to last approximately two (2) hours and be attended by up to two (2) members of the Ricondo Team. This subtask also includes the preparation and distribution of a summary of action items.

Exclusions

- Preparation of grant applications
- Preliminary engineering or architectural analysis

TASK 8. FINANCIAL PLAN

NOTE: The Financial Plan described in the task below considers the financial impact of the Recommended Airport Improvement Plans and CIPs for TIX, COI, and X21 collectively as a system of airports. The fee for this task has been spread across the three master plans (50% TIX, 30% COI, and 20% X21).

The results of the master planning analyses described in the prior tasks will be evaluated from a financial standpoint, taking into consideration expected levels of available FDOT, FAA entitlement, and FAA discretionary funding, availability of local funds, and any opportunities for third party funding. The analyses will help refine a phasing plan for the recommended improvements identified for TCAA that can be implemented in accordance with projected demand growth and emerging facility needs.

The financial plan will be prepared to outline the actions and initiatives necessary to carry out the CIP in a financially sound manner. Included in the financial plan will be the identification of specific funding sources, projections of revenues and expenses, and development of a preferred strategy for undertaking the CIP.

8.1 COLLECT AND REVIEW FINANCIAL DATA

The purpose of this task is to compile, present, and analyze applicable financial information for TCAA. This task will include a review of TCAA's financial structure to determine the composition of Airport management, relevant leases, and other operating issues that will affect future cash flow. The budgeting process used by TCAA will be examined and historical O&M expenses, operating revenue, and capital expenditures will be analyzed. The existing rates and charges schedule will also be examined, including tenant lease terms and rates. The financial information inventory will be used as a basis for development of the financial plan and feasibility of the capital program. Financial data will be collected to support the financial plan of this study and may include, but is not limited to, the following items:

- Summary of leases identifying key terms of each lease (if available)
- Most recent audited financial report
- Prior funding assistance
- Operating and maintenance expenditures, up to five years of available historical information
- Operating revenues, up to five years of available historical information
- General revenue fund balance, or current un-restricted cash on hand
- Anticipated capital expenditures for upcoming two years, including equipment, to be paid with TCAA cash funds/reserves

Ricondo will confirm significant data inputs with TCAA staff, including the assumptions of revenue and expense growth, lease renewals, and project impacts. After collection, Ricondo will work with TCAA staff to request and collect any additional information needed.

8.2 PREPARE FINANCIAL PLAN

This task includes the preparation of a financial plan for carrying out the proposed CIP for the Recommended Airport Improvement Plan and other recommendations/goals specified in the MPU. Included in the financial plan would be the identification and quantification of the need for and availability of specific funding sources, projections of

revenues and expenses, and a cash flow analysis. The output of this effort would consist of a financial plan that TCAA can use as a basis for implementing its proposed CIP.

8.2.1 PRO-FORMA ANALYSIS

The financial plan will assess, through the development of pro-forma financial projections, the financial implications of the funding plan. Pro-forma projections of operating expenses, operating revenues, and capital requirements of the CIP developed through prior tasks. Projections of operating revenues and expenses for the CIP will be based on the MPU's activity projections, assumptions regarding existing and anticipated future tenant leases, additional revenue enhancement opportunities, and estimated operating costs of proposed capital development projects.

8.2.2 SENSITIVITY ANALYSIS

Up to two (2) sensitivity scenarios will be developed to assess the potential financial implications of changes to key assumptions and variables, such as projected revenues, expenses, and activity. These sensitivity scenarios are not intended to be updated projections of activity, revenues, expenses, or other factors. Rather, the sensitivity scenarios will identify the projected range of financial outcomes that could occur. One additional sensitivity scenario will include the identification of potential opportunities for revenue enhancement at the TCAA airports. Such opportunities are likely to be in the form of non-aeronautical revenues.

8.3 PREPARE DRAFT OF FINANCIAL PLAN

A preliminary draft Financial Plan working paper summarizing the findings of each of the preceding tasks will be prepared and provided to TCAA staff for their review. The preliminary draft working paper will be delivered to the TCAA and other stakeholders (at TCAA staff's request) in Adobe PDF.

It is anticipated that Airport staff will review the draft working paper and provide comments to the Ricondo Team. Comments on the draft working paper will be addressed and responded to as appropriate and included in the final master plan report. A comment tracker, used throughout the MPU, will be developed to manage comments and responses. No supplemental draft will be issued.

8.4 MEETINGS

For budgeting purposes, it has been assumed that the Ricondo Team would participate in one (1) conference call using Microsoft Teams, or similar software, with TCAA staff during the duration of this task. The meeting is anticipated to last approximately four (4) hours and be attended by up to two (2) members of the Ricondo Team. This subtask also includes the preparation and distribution of meeting minutes.

TASK 9. REFINE THE PREFERRED ALTERNATIVE

9.1 ALTERNATIVE REFINEMENT

The Ricondo Team anticipates that during the evaluation of alternatives and selection of the Recommended Airport Improvement Plan, items may be identified relative to the various factors evaluated (design standards, environmental considerations, operational impacts, phasing, cost/affordability, or other factors) that will require further refinement. This task will focus on refining the Recommended Airport Improvement Plan to respond to any of the issues identified during the evaluation and selection process.

In addition, this subtask will serve to expand the level of detail and analysis provided for the Recommended Airport Improvement Plan. Additional detail will be provided relative to overall facility layouts, implementation impacts, and costs and financial impacts. As necessary, the Recommended Airport Improvement Plan will be refined relative to specific issues that may have been raised by TCAA staff or other parties during the evaluation and selection process..

The alternatives refinement will conclude with the preparation of an AutoCAD drawing depicting the following elements, among others:

- prominent Airport facilities such as the runway, taxiways, aprons, holding bays, blast pads, extended runway safety areas, buildings, NAVAIDs, parking areas, roads, and major drainage facilities
- revenue-producing nonaviation-related land uses
- areas reserved for future aviation development, including parcels that will be reserved for the ultimate development of aeronautical facilities
- areas reserved for nonaviation development
- GA/FBO and associated support facilities
- approach and departure surfaces and RPZ outlines
- pertinent dimensional data such as runway and taxiway widths and runway lengths, taxiway/runway/apron clearances and safety areas, apron dimensions, building restriction lines, clear zones (safety areas, object free areas, and obstacle free zones)

9.2 MEETINGS

For budgeting purposes, it has been assumed that the Ricondo Team would participate in one (1) teleconference with TCAA staff during the duration of this task. The meeting is anticipated to last approximately two (2) hours and be attended by up to two (2) members of the Ricondo Team. This subtask includes the preparation of the PowerPoint presentation to support the meeting and the preparation and distribution of a summary of action items.

Exclusions

- 3D renderings of the Recommended Airport Improvement Plan

TASK 10. AIRPORT LAYOUT PLAN SET

This effort is intended to produce the ALP drawing set required for the FAA and FDOT to review and conditionally approve the Recommended Airport Improvement Plan for the Airport. The ALP will be prepared in accordance with FAA standards as defined in FAA AC 150/5070-6, *Airport Master Plans*, FAA AC 150/5300-13B, *Airport Design*, and FAA ARP Standard Operating Procedure (SOP) 2.00, Review and Approval of ALPs. To support the submittal of this updated planning product, the Ricondo Team will also review, complete, and submit the checklist that is provided in the FAA SOP 2.00.

10.1 TITLE SHEET

A title sheet will be prepared in accordance with the FAA SOP 2.00 checklist to serve as the drawing set cover sheet. This title sheet will include pertinent information such as the airport name, owner/operator, location, and plan set preparer. An index of drawings, graphic representations of the airport location and airport vicinity will also be presented on the title sheet.

10.2 AIRPORT DATA SHEET

This sheet will contain data specific to the Airport Layout Plan sheet. This data will include the wind roses for the Airport's runway, runway data, safety separation distances, declared distance charts, elevations of specific Airport, runway and taxiway points, etc. Existing and proposed modifications to FAA airport design standards will be identified and delineated in table format along with either the waiver allowing the modification or the proposed method of addressing the modification. A table listing any modifications (existing and proposed) along with their proposed disposition will be incorporated onto the ALP sheet. The taxiway design group (TDG) for each taxiway will be identified along with other information specified in FAA SOP 2.00 ALP Review Checklist.

10.3 EXISTING AIRPORT LAYOUT PLAN

Utilizing new digital mapping for the Airport collected in Task 2, a new drawing will be created to identify facilities and geographical features at the Airport as they currently exist. This drawing will include existing structures, pavements, imaginary surfaces, NAVAIDs (visual and instrument), ground contours, runway protection zones, runway safety areas, property interests, and other pertinent dimensional data recommended by the FAA.

This drawing will reflect projects and other airport improvements that have materialized since the current ALP was last approved. This drawing will also depict the configuration and general dimensioning of the existing airport facilities, including surveyed building heights of all buildings on airport property. The Airport Reference Point (ARP), key elevations, runway end latitude/longitude coordinates, and runway approach surfaces will also be identified. The drawing will also include a legend and applicable notes section, wind roses, and wind coverage tables to be developed under Task 1A as well as a runway data and building data tables. The runway data table will include information such as Approach and Departure Reference Code (APRC and DPRC), Runway Design Code (RDC), runway length, runway width, runway end elevation, runway lighting, runway marking, pavement type, pavement strength and NAVAIDs (visual and instrument). The "true" and magnetic north will also be depicted, which will require the calculation of the magnetic declination at the Airport. Deviations to FAA design standards will be identified and noted appropriately.

The scale of the drawing will be defined at the time the ALP set is commenced and will be determined to provide a clearly legible drawing with all requisite data readily discernible. The scale of the drawing, however, will fall within the range of 1" = 200' and 1" = 600', in accordance with the FAA checklist.

10.4 AIRPORT LAYOUT PLAN

The Ricondo Team will create an ALP to reflect the Recommended Airport Improvement Plan. The ALP will illustrate existing and proposed airfield pavements, roadway and parking pavement/structures, runway markings, on-airport structures, key drainage features, NAVAIDs (visual and instrument), off-airport structures that are located in the immediate vicinity of the Airport, and other miscellaneous natural and man-made items. Established survey monuments located on or in the immediate vicinity of the Airport will also be identified.

Ground contours, runway protection zones, runway safety and object free areas, future property interests, and other pertinent dimensional data recommended by the FAA will also be depicted on the plan. The ARP (existing and proposed), the APRC and DPRC, and RDC for each runway, key elevations, runway end latitude/longitude coordinates, and runway approach surfaces will also be identified. Any proposed improvements and/or changes to these items will be depicted graphically and identified.

The ALP will be developed in accordance with the FAA checklist. Thus, each of the components of the ALP will contain the information necessary to obtain approval from the FAA.

10.5 AIRPORT AIRSPACE DRAWING

This drawing will depict the 14 Code of Federal Regulations (CFR) Part 77 (Part 77) imaginary surfaces as they relate to the Airport's immediate airspace in a plan and profile view. The plan view will be prepared at an approximate scale of 1" = 2,000' and will be overlaid onto a USGS 7-minute quadrangle base map (or orthophotography) of the surrounding area. The profile view will be prepared at a horizontal scale of 1" = 1,000' and a vertical scale of 1" = 100'.

The plan will illustrate the ultimate runway configuration of the airfield with key elevations of the surfaces and stationing from the runway ends being referenced. Fifty (50) foot contour intervals will be shown for all Part 77 sloping imaginary surfaces. This sheet will depict objects penetrating Part 77 surfaces that have not been identified on the ALP or inner approach drawings. The top elevation of each obstruction will be identified on the drawing, as will the disposition of the obstruction in a tabular format. The dimensions of the approach surfaces and transitional surfaces will be charted. Obstruction heights will be obtained from the new digital mapping and other available resources. In addition, all known obstructions to navigable airspace off-Airport will be identified using the latest USGS mapping, the NOAA Obstruction Chart, and the aeronautical sectional chart as applicable. No field obstruction surveys, however, will be completed as part of this subtask.

The FAA checklist will be reviewed (and completed) to confirm that the airport airspace drawing contains the information required by the FAA.

10.6 INNER PORTION OF THE APPROACH SURFACE DRAWINGS

These drawings will depict plan and profile views of the inner portion of the approach to each ultimate runway end at the Airport. These drawings will utilize a 1" = 200' horizontal scale for the plan and profile views and a 1" = 20' vertical scale for the profile views. The plan/profile extents will cover from the referenced runway out to a point

where the approach surface reaches a 100-foot height above the runway end. The new digital base mapping will be used to identify obstructions to navigable airspace.

In accordance with the FAA checklist, these drawings will depict the obstacle identification surfaces contained in Part 77, runway end/threshold siting surfaces, and Glideslope Qualification Surfaces (GQS). Obstructions will be listed numerically in tabular format for each approach with data describing the obstruction type; the surfaces penetrated top elevation, allowable elevation, amount of penetration, and proposed disposition. Elevations of roads, railroads, power poles, trees, buildings, and other objects that are located within the approaches will also be shown.

The drawings will also depict the runway end/threshold siting surfaces associated with each runway end. These surfaces will be defined based on the type of instrument approaches anticipated and the design aircraft for each runway end in accordance with the standards defined in FAA AC 5300-13B, *Airport Design*.

10.7 DEPARTURE SURFACE DRAWING

This subtask includes the preparation of a drawing depicting the departure surfaces prescribed in FAA Order 8260.3D, *United States Standard for Terminal Instrument Procedures (TERPS)* for each runway end. The sheet will consist of a scaled plan and profile drawing of the area within the 40:1 departure surface. The drawing will depict the location of potential obstructions and corresponding tables listing objects, departure surface penetrations, object top elevation, and proposed disposition.

10.8 EXISTING LAND USE DRAWING

This drawing will depict land uses on and adjacent to existing Airport property. The on-Airport land uses will be depicted by general use categories such as aviation, commercial, industrial, non-aviation revenue producing, public use, etc. The off-airport land uses in the immediate vicinity of the Airport will be defined based on the Brevard County land use maps.

10.9 PROPOSED LAND USE DRAWING

This drawing will depict proposed land uses on and adjacent to existing and proposed Airport property. Similar to the Existing Land Use Drawing, the on-Airport land uses will be depicted by general use categories such as aviation, commercial, industrial, non-aviation revenue producing, public use, etc. The specific designations to land use within the airport property limits will be discussed with TCAA staff and be revised as directed to reflect the categories that are desired and recommended as part of the MPU. The off-airport land uses in the immediate vicinity of the Airport will be defined based on the Brevard County land use maps.

10.10 DELIVERABLES

10.10.1 DRAFT AIRPORT LAYOUT PLAN SET

The subtask includes the preparation and submission of an electronic (Adobe PDF) version and two (2) 24-inch by 36-inch hard copy sets of the ALP Set to TCAA staff for review and comment. It is anticipated that Airport staff will review the draft ALP set and provide comment and feedback to the Ricondo Team.

10.10.2 REVISE DRAFT AIRPORT LAYOUT PLAN AND RESPOND TO SPONSOR COMMENTS

The Ricondo Team will revise the ALP drawing set based on the comments received from the Airport accordingly. A revision tracker will be developed and utilized to summarize sponsor comments and the Ricondo Team's response.

10.10.3 PREPARE CHECKLISTS ACCORDING TO SOP 2.00

This subtask includes the preparation of the SOP 2.00 checklist for submission to the FAA and FDOT. The checklist will be prepared electronically and submitted to the FAA and FDOT during the ALP drawing set submissions.

10.10.4 REVISED DRAFT AIRPORT LAYOUT PLAN SET SUBMITTAL

Once comments have been received from TCAA staff and addressed, three (3) copies of the revised draft Airport Layout Plan drawing set will be submitted to COI for distribution to the FAA (one copy), FDOT Aviation and Spaceports Office (one copy), and Airport staff (one copy). An electronic version of the drawings set will also be provided in Adobe PDF. The checklist prepared as part of the previous subtask will also be submitted to the FAA and FDOT to assist in the review process.

10.10.5 REVISE DRAFT AIRPORT LAYOUT PLAN SET AND RESPOND TO FAA AND FDOT COMMENTS

The Ricondo Team will revise the ALP drawing set based on the comments received from the FAA and FDOT accordingly. A revision tracker will be developed and utilized to summarize the FAA and FDOT comments and the Ricondo Team's response.

10.10.6 PREPARE FINAL AIRPORT LAYOUT PLAN SET

Once comments have been received from FAA and FDOT and addressed, eight (8) copies of the final Airport Layout Plan drawing set will be submitted to COI for distribution to the FAA (five copies), FDOT Aviation and Spaceports Office (one copy), and Airport staff (two copies). An electronic version of the drawings set will also be provided in Adobe PDF. It is assumed that COI will be responsible for forwarding the Airport Plans set to the FAA ADO for their review, coordination, approval, and signature. An electronic version of the drawings set will also be provided. The final drawings will be provided in both AutoCAD and Adobe PDF formats.

10.11 MEETINGS

For budgeting purposes, it has been assumed that the Ricondo Team would participate in one (1) two (2) hour ALP "page flip" at the Airport. This meeting will provide an opportunity to present the draft ALP drawing set to TCAA staff and to review the proposed projects to be reflected on the ALP. The meeting will be attended by up to two (2) members of the Ricondo Team. This subtask includes the plotting of two (2) ALP sets and the preparation and distribution of a summary of action items.

Exclusions

- Terminal Area Plan
- Utility Plan

TASK 11. EXHIBIT 'A' AIRPORT PROPERTY INVENTORY MAP

11.1 TITLE WORK

This subtask will include researching the ownership, easements, agreements, and encumbrances associated with a maximum of 12 parcels. The Ricondo Team will review the Airport Property Map completed in 2021 and any additional property records provided by the TCAA and the Brevard County Property Appraiser. To ensure the proper identification of all parcels to be searched, the team will use the information shown on the map(s) to develop a master spreadsheet. This spreadsheet will serve as the project control document for all parcels within the project area. The following steps will be taken to ensure that all parcels have been properly identified and assigned:

- The tax identification number(s) for each parcel are confirmed against county records.
- The tax information is entered on the master spreadsheet.
- Parcels are “batched” according to relevant criteria.
- The abstractor(s) assigned to the parcel(s) will research the titles from the earliest public records, unless otherwise specifically directed by TCAA staff, for all airport ownership, easements, agreements, etc. (No leases, liens or mortgages will be included).
- Independently research the parent tract for contiguous lands.

Upon the completion of the research, a Specific Purpose Report will be completed on each Parcel ID number. Parcel ID's with the same vesting information will be combined into one report.

11.2 BOUNDARY SURVEY

The Ricondo Team will perform a Boundary Survey of up to 12 parcels combined to form approximately 140+/- acres assumed to represent property owned by the TCAA, as depicted on the Airport Property Map completed in 2021. Additionally, a maximum of twelve (12) easements are assumed to be owned by the TCAA. Title reports produced as part of subtask 11.1 will be reviewed to determine encumbrances reflected therein that should be reflected on the boundary survey of each property. Individual small parcels of land originally acquired for noise purposes will not be individually surveyed as part of this project. Property acquired since the completion of the 2021 map will be added to the property inventory.

Once the field data collection is completed and all field QA/QC checks have been made, all raw data files will be processed and subsequently imported into AutoCAD software for the creation of the final project drawings and reports. The final Boundary Survey deliverable will be compiled from all field data collected, a review of all title searches and documentation amassed from public records sources for each individual parcel boundary survey.

The field location of each parcel's boundary monumentation will be compared to the legal description of each parcel and the final location of each parcel boundary will be determined. All work will be performed in accordance with the standards of practice outlined in Chapter 5J-17 of the Florida Administrative Code, pursuant to Section 472.027, Florida Statutes.

11.3 EXHIBIT 'A' AIRPORT PROPERTY INVENTORY MAP

This subtask includes the development of an Exhibit 'A' Airport Property Inventory Map. The deliverable will be prepared at a scale equal to that of the ALP and will depict the existing airport property boundary as well as proposed acquisition areas. The drawing will indicate in matrix form how, when, and from whom the various parcels were acquired. The data table will include (if available): number or letter and area of each parcel or easement, date property was acquired or disposed (recorded date), recorded document number (book/page), encumbrance (if applicable), Brevard County Tax ID, Federal Aid project number under which the property acquisition was reimbursed, type of acquisition (i.e. AIP-noise, AIP entitlement, surplus property, local purchase, local donation, condemnation, other), grantor of property, and acreage. The Exhibit 'A' Airport Property Inventory Map will also document existing easements within the Airport boundary.

The updating of the property map will conform with the guidelines discussed in the FAA's Standard Operating Procedure (SOP 3.00) for FAA Review of Exhibit 'A' Airport Property Inventory Maps (dated October 1, 2013). FAA SOP 2.00 also provides the same Airport Property Inventory Map/Exhibit A guidelines.

11.4 PREPARE CHECKLIST ACCORDING TO SOP 3.00

The SOP 3.00 Exhibit 'A' Review Checklist will be completed to ensure that all FAA Exhibit 'A' Property Inventory Map requirements are met. The checklist will be submitted to TCAA as part of the Exhibit 'A' Property Inventory Map package for review and comment. Additionally, this checklist will be submitted to the FAA to aide in the review process of the Exhibit 'A' Property Inventory Map set.

11.5 MEETINGS

The Ricondo Team anticipates that up to six (6) teleconferences will be conducted as part of this subtask: four (4) with the title abstractor and surveyor and two (2) with TCAA staff. Each meeting is anticipated to last approximately one (1) hour and be attended by up to two (2) members of the Ricondo Team. A summary of action items will be developed for the two meetings with TCAA staff.

Exclusions

- No residential aviation easement identification and mapping beyond what is provided on the Airport Property Map completed in 2021.
- No site improvements/encroachments will be located as part of each boundary survey.

TASK 12. DOCUMENTATION

The final MPU deliverables will include technical reports for each of the key tasks, an Executive-Summary (brochure format), and an executive level PowerPoint slide deck briefing.

12.1 DEVELOP POWERPOINT TEMPLATE

This task will include the development of a professionally designed PowerPoint template used throughout the master planning process. The template will be designed to incorporate the Airport's branding, including logo, fonts, and color schemes. The PowerPoint template will be used in all stakeholder and public outreach efforts and for all presentations related to the MPU.

12.2 EXECUTIVE SUMMARY

12.2.1 PREPARE EXECUTIVE SUMMARY BROCHURE

The Ricondo Team will prepare and submit a draft Executive Summary in a brochure format that summarizes the results of the aviation forecasts, the facility requirements, alternatives, Recommended Airport Improvement Plan, and CIP to TCAA staff for review and comment. Upon receipt of TCAA staff comments, the Ricondo Team will prepare a final draft for TCAA review and comment. Following the final review by TCAA staff, the Ricondo Team will prepare the final Executive Summary brochure which will include up to 20 single-sided pages (8.5"x 11" using 100 lb. paper) with color exhibits. The Ricondo team will provide a total of 25 copies and an electronic file version in Adobe PDF format of the Executive Summary.

12.2.2 PREPARE EXECUTIVE SUMMARY POWERPOINT

In consultation with TCAA staff, the Ricondo Team will develop a concise (not to exceed 25 slides) PowerPoint presentation summarizing the MPU process, Recommended Airport Improvement Plan, and CIP.

12.3 PREPARE DRAFT AIRPORT MASTER PLAN UPDATE REPORT

A draft MPU report will be prepared that will summarize the findings of each of the tasks described earlier, delineating the methodology, assumptions, and findings of the various planning analyses undertaken.

This MPU report will be comprehensive in terms of the information presented to allow review and comment by the appropriate parties. Upon receipt of review and comments from the TCAA, the report will be finalized, representing the MPU Final Report. Five (5) comb bound draft final reports will be prepared for distribution. In addition, an electronic file version in Adobe PDF format of the draft report will be provided.

12.4 RESPOND TO SPONSOR, FAA, AND FDOT COMMENTS

Upon receipt of comments from TCAA staff, FAA, and FDOT on the draft MPU Report, the Ricondo Team will revise the report and prepare a response to the comments. The comments will be summarized using a comment tracker.

12.5 PREPARE FINAL AIRPORT MASTER PLAN UPDATE REPORT

The MPU Final Report, consolidating all working papers for each of the key tasks included in this Scope of Services, will be prepared after all agency and participants have made their comments on the draft final report and TCAA staff has directed the Ricondo Team to incorporate these comments into a final report.

Twelve (12) bound final reports of the COI MPU will be prepared for distribution. Of these copies, one (1) will be forwarded to the FAA's Orlando ADO, and one (1) will be forwarded to the FDOT Aviation and Spaceports office. The remaining ten (10) copies will be sent to the TCAA staff for internal and TCAA distribution -one (1) copy for each of the seven (7) board members and three (3) copies for TCAA staff. Files of final chapters and associated graphics will be provided electronically to TCAA staff.

TASK 13. PROJECT ADMINISTRATION AND COORDINATION

13.1 GRANT SERVICES

The Ricondo Team will provide grant services to TCAA staff in the form of assistance with the preparation and submittal of Grant Pre-Applications, Grant Applications, FAA Quarterly Grant Reports and Grant Closeout Documents. Grant application assistance will include the development of project descriptions and justifications, verifications of project costs, and the completion of Categorical Exclusion (CATEX) documentation. Quarterly reporting assistance will include the preparation of the Grant Quarterly Report Checklist, Project Status Summary, and Outlay Report/Reimbursement documentation. Grant closeout documentation gathered will include a project closeout summary, DBE participation summary, project cost summary, outlay report, and distribution cost summary.

13.2 DEVELOP MONTHLY STATUS REPORTS

This subtask will include the development of project status reports on a monthly basis and invoicing of the project. The status reports will describe progress on a task-by-task basis. For budgeting purposes, it is anticipated that sixteen (16) monthly status reports will be prepared.

13.3 OTHER MEETINGS (IN ADDITION TO THOSE IDENTIFIED WITHIN THE PREVIOUS INDIVIDUAL TASKS)

13.3.1 KICK-OFF MEETING

The Ricondo Team (including up to two representatives from the Ricondo Team) will participate in a project kick-off meeting to discuss project objectives and schedules with TCAA staff and other agencies, (e.g., FAA, FDOT). The Ricondo Team will prepare meeting/presentation materials, using Microsoft PowerPoint, to provide a general overview of the Study. For budgeting purposes, it is anticipated the kick-off meeting will last up to two (2) hours.

13.3.2 TCAA STAFF COORDINATION CALLS

In addition to the kick-off meeting, additional meetings to facilitate coordination, provide updates and present progress on specific study elements or technical analyses are needed between the Ricondo Team and TCAA staff. For budgeting purposes, it has been assumed that one (1) member of the Ricondo Team will participate in up to twelve (12) one (1) hour web conference sessions using Microsoft Teams or similar software. These web conference sessions will provide an opportunity to discuss the status of the MPU, preliminary findings, etc. An agenda for these conference sessions will be prepared and distributed to TCAA staff.

13.3.3 FAA COORDINATION BRIEFINGS

This proposal includes up to two (2) separate meetings between the Ricondo Team, TCAA staff, and the FAA to provide updates, request feedback, and present progress on specific study elements or technical analyses of the MPU. For budgeting purposes, it is assumed that two (2) members of the Ricondo Team would participate in two (2) in-person meetings at the FAA's Orlando ADO. Each meeting is estimated to last two (2) hours and are anticipated to include the topics:

- Aviation activity forecast, aircraft fleet mix, and design aircraft
- ALP set review

The development of the material noted above, including accompanying technical analyses, would be conducted as part of each specific task. However, this subtask includes the effort needed to compile and prepare a presentation on the items noted above, as well as the preparation and distribution of meeting minutes.

13.3.4 FDOT COORDINATION BRIEFING

In addition to the two TAP briefings (see Task 1E), a separate meeting (1 meeting) to facilitate coordination, provide updates and present progress on specific study elements or technical analyses is likely to be required between the Ricondo Team, TCAA staff, and FDOT. For budgeting purposes, it has been assumed that the two (2) hour meeting would be conducted via a web conference using Microsoft Teams or similar software. Alternatively, this meeting could take place before or after one of the meetings that will take place at the Airport. This subtask also includes the preparation of the presentation and materials to be presented during the meeting, as well as the preparation and distribution of meeting minutes. This meeting will be attended by up to two (2) members of the Ricondo Team.

Exclusions

- Separate kick-off meetings with FAA, FDOT, or regional/local agencies

TASK 14. NOISE ANALYSIS (SUPPLEMENTAL TASK)

This task encompasses the development of two aircraft noise contours at Merritt Island Airport (COI) for existing and future conditions associated with the forecast aviation activity growth and the proposed airfield improvements identified as part of the Recommended Airport Improvement Plan. The future condition contour will be based on single planning year or activity level identified in the MPU.

The methodology used to develop noise contours will comply with the FAA requirements described in Title 14 CFR Part 150 and will be developed using the most current version of FAA's approved noise analysis model at the time of project initiation, the Aviation Environmental Design Tool (AEDT).

The following tasks will be undertaken as part of the aircraft noise overview analysis.

14.1 AIRPORT DEFINITION IN NOISE MODEL

AEDT requires airport runway and weather input as part of defining an airport. The following activities will be conducted to define the Airport in AEDT:

- Use the ALP datasheet and preferred alternative to gather runway end latitudes/longitudes, displaced threshold length(s), and height above landing threshold for approaches
- Use weather data collected in the inventory task to assign average annual day (AAD) temperature, humidity, and air pressure levels at the Airport
- Download United States Geological Survey (USGS) terrain data to account for terrain variations in study area
- Define study area and related grid points to include an area large enough to include areas potentially exposed to Day/Night Noise Level (DNL) at or higher than 60 A-weighted decibels (dBA)

14.2 EXISTING AND FORECAST ACTIVITY AND AIRCRAFT FLEET MIX

The aircraft fleet mix, both fixed-wing and helicopters, representing AAD aircraft operations for the existing and forecast operation conditions will be used for noise modeling. The following activities are planned to develop existing and forecast AAD operations:

- Use readily available operations data (e.g., TFMSC, available Airport records, etc.) and at least 12 consecutive months of Virtower Airport Operations Tracking System data provided by the Airport or downloaded using access credentials provided by the Airport. The data includes aircraft type, runway assignment, date/time, origin/destination, and operation mode (arrival, departure and touch-and-go). (Note: Virtower would need to conduct spatial analysis to identify touch-and-go operations that are counted as one touch-and-go each time an aircraft follows the touch-and-go pattern). This scope assumes the Virtower Airport Operations Tracking System data will serve as the primary source to develop existing AAD flight operations. The data should span as many months as possible over the existing conditions year to capture variance for several months. The data would be used to develop the following:
 - Develop operations file to include aircraft type, operation mode (arrival/departure/touch-and-go), and time of day (daytime: 7:00 a.m. to 9:59 p.m.; nighttime: 10:00 p.m. to 6:59 a.m.).
 - Determine time of day distribution.

- Distribute flight operations on model flight tracks.
- Provide specific aircraft type operations that will be used to assign the appropriate AEDT aircraft type to each aircraft in the operations files. (Note: if an aircraft type operating or expected to operate at the Airport is not included in AEDT, the FAA Office of Environment and Energy [FAA AEE] approved substitutions for that aircraft type would be used. If there is no approved substitution, Ricondo would select one based on similar performance and weight characteristics. Because this assessment is not intended to support a Title 14 CFR Part 150 study or NEPA analysis, FAA AEE approval would not be required).
- Assign departure stage lengths based on destination data that provide the lowest altitude profile for modeled aircraft. (Note: Because this assessment is not intended to support a Title 14 CFR Part 150 study or NEPA analysis, FAA AEE approval would not be required).

If Virtower Airport Operations Tracking System data is not available, Ricondo will coordinate with TCAA staff to determine an alternative approach that will involve observations at the Airport. Ricondo will rely upon the forecast operations effort to develop future year AAD operations files. The forecast operations data will require number of operations by aircraft type, operation mode, time of day and origin/destination.

14.3 RADAR DATA COLLECTION/NOISE MODEL FLIGHT TRACK DEVELOPMENT

Representative aircraft noise model flight track locations and flight track use for arrival, departure and touch-and-go operations will be created based on the information provided by the flight track data samples from the Virtower Airport Operations Tracking System.

A data-export script in Virtower Airport Operations Tracking System will be developed by Virtower to export radar data based on user-provided filtering. The script will provide the radar and correlated flight operations in a format that can be readily imported into Ricondo's radar analysis software. Ricondo will import the data provided by Virtower into the radar analysis software to develop representative AEDT noise model tracks. It is assumed the data quality will be reviewed by Virtower and will not require further review.

The radar track data will be used to capture typical flight pattern conditions for seasonal periods and runway operating configurations. The appropriate level of radar data (covering all seasons) will be analyzed to create the flight track backbone and dispersion of tracks for modeling noise in AEDT. Noise model track development will also consider previous noise model tracks for the Airport. The key activities include:

- Process Airport radar data of the flights operating at the Airport during the existing baseline year that was collected in the inventory task.
- Review previous noise model study files collected in the inventory task to extract flight tracks geometry and use.
- Review available airspace and air traffic operating procedures and flight procedures gathered in the inventory task.
- Develop generalized noise model arrival and departure tracks for AEDT to account for major traffic flows for the Airport using available radar data and previous noise model tracks as reference.
 - Noise model tracks will be developed at lengths sufficient to cover expected areas exposed to noise levels at or higher than DNL 60 dBA (area estimated will be based on previous noise exposure analysis if available).

- Assume tracks located in same areas during daytime and nighttime hours unless it is found during the data collection time that the nighttime hours have different arrival/departure routes.
- Rely on standard airport traffic pattern definition to aid in entering/exiting traffic pattern at the Airport.
- Assume arrivals on straight-in approach along runway centerline within at least five nautical miles from end of runway.
- Noise model tracks will represent cardinal direction to and from runways at the Airport
- Develop generalized touch-and-go tracks based on preferred traffic circuit direction-based on Virtower Airport Operations Tracking System data, Airport staff interviews, and previous noise model assumptions.
 - Assume left and right turn circuit tracks for each runway end
 - Reference radar data to aid in development but define length based on standard AEDT aircraft performance profiles for touch-and-go operations.
- Develop generalized helicopter tracks based on radar data, TCAA staff interviews, and previous noise model assumptions and track data provided by the Virtower Airport Operations Tracking System.
 - Design single track (no dispersion) to represent primary flows
 - Design based on AEDT standards and defaults.
- Develop noise model flight track use assumptions based on directional frequency observed in track data and/or previous model track use assumptions.
 - Number of directions for each runway end will be limited to north, northwest, west, southwest, south, southeast, east, and northeast. Each runway may not have all directions based on observations of the track data.

14.4 RUNWAY USE

The results of the radar data analysis from the Virtower Airport Operations Tracking System, Airport staff, and previous noise model assumptions will be used to derive statistical operational distributions on the runways by aircraft category, operation type, and time of day. Runway end use assignments for the existing and future preferred development plan will be developed based on the following activities:

- Define runway geometry in AEDT based on current version of ALP.
- Determine existing runway use based on radar tracks to runway processing (assumes Virtower Airport Operations Tracking System data is captured close to runway ends).
- Compare radar data runway use to previous noise model assumptions and use to adjust track data runway use as necessary to derive existing noise model runway use assumptions
- Review existing use results with Airport staff to validate results and adjust as necessary.
- Adjust existing runway use assumptions to reflect future runway use assumptions for preferred alternative.
- Similarly, airfield geometry and runway end coordinates will for the future condition will be defined by the runway geometry in the preferred development plan.

14.5 AIRCRAFT PERFORMANCE OPERATIONAL PROFILE

A flight profile defines the distance, altitude, speed, and thrust settings along a modeled flight path. For noise modeling purposes, AEDT-standard arrival and departure profiles (defining the distance, altitude, speed, and thrust settings along a modeled flight path) will be used; no aircraft database customization is included. Approaches will be based on a 3-degree glide slope descent (AEDT standard). AEDT default settings and standard aircraft performance data will be used. This scope assumes that there will be no user-defined performance profiles that require FAA coordination/approval. The following activities to assign aircraft performance profiles are as follows:

- Assume short distance departure stage lengths for propeller aircraft
- Compare to previous noise model to identify differences and adjust departure stage length profiles if appropriate to be consistent
- Develop touch-and-go profiles based on standard AEDT best practice methods

14.6 AIRCRAFT NOISE EXPOSURE CONTOURS BASELINE (EXISTING) AND FUTURE CONTOURS

This task involves the processing of the AEDT model and calculation of DNL noise exposure levels for the existing and future scenarios. Noise contours will be developed and displayed in terms of DNL values of 60, 65, 70, 75 and for the existing conditions and the preferred alternative for one future year. Noise contour maps would be overlaid on general base-maps and incorporated into the Land Use Drawings.

14.6.1 BASELINE (EXISTING) NOISE CONTOURS

The aircraft noise contours of DNL 60, 65, 70, and 75 and resulting from the AAD operations for the existing baseline condition will be created using the FAA's AEDT. The following activities will take place in calculating the contours:

- Process operations, runway use and noise model track data into AEDT format and conduct quality control/quality assurance (QA/QC) checks to ensure all operations are accounted for in AEDT.
- Conduct final noise calculation run at refined settings to produce existing noise contours.
- Export into GIS format to conduct exposure analysis and develop map.

14.6.2 NOISE CONTOURS FOR PREFERRED ALTERNATIVE (FUTURE YEAR)

The aircraft noise contours of DNL 60, 65, 70, and 75 and resulting from the forecast AAD operations for one future year condition will be created using the FAA's AEDT. The following activities will take place in calculating the contours:

- Process operations, runway use and noise model track data into AEDT format and conduct quality control/quality assurance (QA/QC) checks to ensure all operations are accounted for in AEDT.
- Conduct up to two iterative noise calculation runs for the future year to debug input according to AEDT error messages.
- Conduct final noise calculation run at refined settings to produce existing noise contours.
- Export into GIS format to conduct exposure analysis and develop map.

14.7 EXPOSURE ANALYSIS

Maps will be developed showing the calculated existing and future year preferred alternative noise exposure contours based on the baseline forecast scenario over a generalized basemap developed by Google or ESRI (note: may develop using aerial photography if preferred by Airport staff). In addition, spatial analysis will be conducted using GIS, the noise exposure contours and US Census population data to determine the noise exposure levels on population. The data will be presented in a tabular format summarizing population, housing, and area of exposure by DNL 60, 65, and 70. Primary activities will include:

- Develop aircraft noise exposure maps for existing and the one future years for the preferred alternative (baseline forecast activity).
- Conduct spatial analysis to count number of people and dwelling units with the DNL 60, 65, 70, and 75 areas.
- Conduct spatial analysis to identify noise-sensitive uses exposed to DNL levels at or above 60 dBA at every 5dBA incremental band up to 75 DNL (if applicable).

14.8 DELIVERABLES

- A draft working paper will be developed and included as part of the Environmental Overview (Task 6.3)
- The Baseline (Existing and Future Year) AEDT noise files will be submitted to COI staff for use in future environmental and/or noise analyses. +

Assumptions

The following are critical assumptions applied to determine the appropriate level of effort. The Ricondo Team will coordinate with TCAA staff if the assumptions differ from actual circumstances.

- Virtower Airport Operations Tracking System will serve as the primary source for existing condition operations, runway use and flight paths.
- Noise contours will be prepared for informational purposes only and are not intended to be used for the purpose of 14 CFR Part 150 Noise Exposure Maps (NEMs) or Noise Compatibility Program (NCP).
- Noise analysis will include aircraft flight noise; aircraft ground noise will not be included
- Flight track data and aircraft operations data to be provided from the Virtower Airport Operations Tracking System with no need for additional processing. (Note: Ricondo will assist Virtower staff in identifying the required format to extract the track and operations data.)
- Prior noise analysis study files (INM or AEDT) will be provided by TCAA
- A generalized approach to develop radar track development will be used. Ricondo will use AEDT default setting for dispersed tracks on a backbone.

Exclusions

- On-site operation observations and surveys
- Portable noise measurements
- Coordination with FAA Airport District Office (ADO) on aircraft noise modeling methodology and results
- AEDT customized input (e.g., custom aircraft, arrival/departure performance profiles, and radar track data profile comparisons to AEDT profiles)

- Emissions calculations based on developed AEDT noise model
- Impact analysis and noise abatement or mitigation measure to address impact
- Review of local jurisdiction land use plans, policies, and regulations
- Windshield land use surveys
- Spatial analyses to locate noise model dispersion tracks and backbone

FEE PROPOSAL AND SCHEDULE OF MEETINGS

The lump sum fees (by firm) for the professional planning services outlined in this Scope of Services are summarized in **Table 2. Appendix A** provides a cost breakdown by subtask and labor category for Ricondo. Proposals from Ricondo’s sub-consultants are included in **Appendix B** through **E**.

Table 3 provides a summary of the meetings that are anticipated to take place during the MPU.

TABLE 2 MERRITT ISLAND AIRPORT MASTER PLAN UPDATE FEE PROPOSAL

Tasks		Ricondo	AID (DBE)	Brown & Phillips, Inc. (DBE)	The Quotient Group (DBE)	Martinez Geospatial (DBE)	Total
1A	Inventory of Existing Conditions	\$ 18,844.00	\$ 29,022.00	\$ -	\$ 4,000.00	\$ -	\$ 51,866.00
1B	Emerging Trends and Technologies	\$ 6,200.00	\$ -	\$ -	\$ -	\$ -	\$ 6,200.00
1C	Visioning Session with TCAA Board	\$ 4,689.00	\$ 276.00	\$ -	\$ -	\$ -	\$ 4,965.00
1D	Strengths and Opportunities Assessment	\$ 5,209.00	\$ 276.00	\$ -	\$ -	\$ -	\$ 5,485.00
1E	Stakeholder and Public Involvement	\$ 49,016.00	\$ -	\$ -	\$ 7,500.00	\$ -	\$ 56,516.00
2	Aerial Surveying and Mapping	\$ 5,720.00	\$ -	\$ 30,696.00	\$ -	\$ 59,971.71	\$ 96,387.71
3	Aviation Activity Forecasts	\$ 30,738.00	\$ -	\$ -	\$ -	\$ -	\$ 30,738.00
4	Demand/Capacity Analysis and Airport Requirements	\$ 42,448.00	\$ -	\$ -	\$ -	\$ -	\$ 42,448.00
5	Formulate Alternatives	\$ 31,961.00	\$ 10,048.00	\$ -	\$ -	\$ -	\$ 42,009.00
6	Environmental Overview	\$ 10,525.00	\$ -	\$ -	\$ -	\$ -	\$ 10,525.00
7	Capital Improvement Program	\$ 41,226.00	\$ -	\$ -	\$ -	\$ -	\$ 41,226.00
8	Financial Plan	\$ 25,742.00	\$ -	\$ -	\$ -	\$ -	\$ 25,742.00
9	Refine The Preferred Alternative	\$ 9,960.00	\$ -	\$ -	\$ -	\$ -	\$ 9,960.00
10	Airport Layout Plan Set	\$ 57,508.00	\$ -	\$ -	\$ -	\$ -	\$ 57,508.00
11	Exhibit 'A' Airport Property Inventory Map	\$ 2,240.00	\$ 18,972.00	\$ 15,876.00	\$ -	\$ -	\$ 37,088.00
12	Documentation	\$ 37,122.00	\$ -	\$ -	\$ 6,000.00	\$ -	\$ 43,122.00
13	Project Administration and Coordination	\$ 16,816.00	\$ 17,960.00	\$ -	\$ -	\$ -	\$ 34,776.00
14	Noise Analysis (Supplemental Task)	\$ 56,899.00	\$ -	\$ -	\$ -	\$ -	\$ 56,899.00
Grand Total		\$ 452,863.00	\$ 76,554.00	\$ 46,572.00	\$ 17,500.00	\$ 59,971.71	\$ 653,460.71
Share (Required Tasks)		69.30%	11.72%	7.13%	2.68%	9.18%	100.00%
DBE Total (Required Tasks)		30.7%					
SOURCES: Ricondo & Associates, Inc., May 2022; American Infrastructure Development, Inc., May 2022; Martinez Geospatial Proposal, May 2022; Brown & Phillips, Inc., May 2022; The Quotient Group, May 2022.							
Legend							
Costs Spread Evenly Across Three MPUs							
Costs Spread Across Three MPUs - 50% TIX, 30% COI, and 20% X21							
Costs for Subtasks 1E.3.2 and 1E.4.2 Spread Evenly Across Three MPUs							

TABLE 3 MERRITT ISLAND AIRPORT MASTER PLAN UPDATE SCHEDULE OF MEETINGS

MEETING NUMBER	ASSOC. TASK NUMBER	MEETING DESCRIPTION	ANTICIPATED DURATION	RICONDO TEAM PARTICIPANTS	MEETING MATERIALS PREPARED
1	1A	Site Visit	6 hours	2	Checklist and Corresponding Exhibits
2	1C	Visioning Session	2 hours	3	PowerPoint Presentation
3	1D	Strength and Opportunities Assessment (Meeting with TCAA Staff)	2 hours	2	PowerPoint Presentation, Summary of Action Items
4	1D	Strength and Opportunities Assessment (Meeting with TCAA Board Members)	2 hours	2	PowerPoint Presentation
5	1E	TAP Briefing #1	2 hours	2	PowerPoint Presentation, Meeting Minutes
6	1E	TAP Briefing #2	2 hours	2	PowerPoint Presentation, Meeting Minutes
7	1E	TAP Briefing #3	2 hours	2	PowerPoint Presentation, Meeting Minutes
8	1E	CAP Briefing #1	2 hours	2	PowerPoint Presentation, Meeting Minutes
9	1E	CAP Briefing #2	2 hours	2	PowerPoint Presentation, Meeting Minutes
10	1E	CAP Briefing #3	2 hours	2	PowerPoint Presentation, Meeting Minutes
11	1E	TCAA Workshop #1	2 hours	3	Display Boards and/or PowerPoint Presentations, Meeting Minutes
12	1E	TCAA Workshop #2	2 hours	3	Display Boards and/or PowerPoint Presentations, Meeting Minutes
13	1E	TCAA Board Briefings #1	2 hours	2	PowerPoint Presentation
14	1E	TCAA Board Briefings #2	2 hours	2	PowerPoint Presentation
15	1E	Public Workshop #1	3 hours	3	Meeting Notice, Meeting Advertisement, Completed Comment forms and Sign-in Sheets, Summary of Action Items
16	1E	Public Workshop #2	3 hours	3	Meeting Notice, Meeting Advertisement, Completed Comment forms and Sign-in Sheets, Summary of Action Items
17	3	FBOs Coordination Meeting (Virtual Meeting)	2 hours	2	PowerPoint Presentation
18	3	FBOs Coordination Meeting (Virtual Meeting)	2 hours	2	PowerPoint Presentation
19	3	TCAA Briefing (Virtual Meeting)	2 hours	2	PowerPoint Presentation, Summary of Action Items
20	3	FAA/FDOT Briefing (Virtual Meeting)	2 hours	2	PowerPoint Presentation, Summary of Action Items
21	4	TCAA Coordination Meeting (Virtual Meeting)	2 hours	2	PowerPoint Presentation, Summary of Action Items
22	5	TCAA Coordination Meeting	2 hours	2	PowerPoint Presentation, Summary of Action Items
23	5	TCAA Coordination Meeting	2 hours	2	PowerPoint Presentation, Summary of Action Items
24	7	TCAA Coordination Meeting (Virtual Meeting)	2 hours	2	PowerPoint Presentation, Summary of Action Items
25	7	TCAA Coordination Meeting (TCAA Office)	2 hours	2	PowerPoint Presentation, Summary of Action Items
26	8	TCAA Coordination Meeting (Virtual Meeting)	4 hours	2	PowerPoint Presentation, Meeting Minutes
27	9	TCAA Coordination Meeting (Virtual Meeting)	2 hours	2	PowerPoint Presentation, Summary of Action Items
28	10	ALP "Page Flip" with TCAA	2 hours	2	2 ALP Sets, Summary of Action Items

MEETING NUMBER	ASSOC. TASK NUMBER	MEETING DESCRIPTION	ANTICIPATED DURATION	RICONDO TEAM PARTICIPANTS	MEETING MATERIALS PREPARED
29	11	TCAA Coordination Meeting (Virtual Meeting) x 2	1 hour	2	Summary of Action Items
30	11	Title Abstractor (Virtual Meeting) x 4	1 hour	2	None
31	13	Kick-Off Meeting	2 hours	2	PowerPoint Presentation
32	13	TCAA Staff Coordination Calls (Virtual Meeting) x 12	1 hour	1	Agenda, Summary of Action Items
33	13	FAA Coordination Briefings (at FAA's Orlando ADO) – Forecasts, Fleet Mix, Design Aircraft	2 hours	2	PowerPoint Presentation, Meeting Minutes
34	13	FAA Coordination Briefings (at FAA's Orlando ADO) – ALP Set Review	2 hours	2	ALP Set and Meeting Minutes
35	13	FDOT Coordination Briefing (Virtual Meeting)	2 hours	2	PowerPoint Presentation, Meeting Minutes

NOTES:

ADO – Airports District Office

ALP – Airport Layout Plan

CAP – Citizens Advisory Panel

FAA – Federal Aviation Administration

FDOT – Florida Department of Transportation

TAP – Technical Advisory Panel

TCAA – Titusville-Cocoa Airport Authority

1. The meetings are anticipated to be held on-site at the Airport or at TCAA Administration Building unless otherwise indicated in the table above.

APPENDIX A RICONDO & ASSOCIATES, INC. FEE PROPOSAL

Merritt Island Airport (COI)
Airport Master Plan Update
Labor/Fee Estimate Summary - Ricondo & Associates, Inc.

LEGEND

Highlighted tasks include elements that are applicable to the TIX, COI, and X21 Airport Master Plan Updates. The total costs for these tasks have been spread across the three Airport Master Plans. The hours and expenses on this Labor/Fee Estimate Summary do not reflect task totals, only the portion allocated to this Airport Master Plan.

BILLING RATE (SEE NOTE #1): \$ 389.00 \$ 330.00 \$ 260.00 \$ 160.00 \$ 142.00 \$ 120.00

			LABOR ESTIMATE (HOURS)							FEE ESTIMATE (\$)				
												Sub - consultants Expenses		
Task Number and Description			Responsibility	Officer	Director	Managing Consultant	Senior Consultant	Consultant	Technical Specialist	Total	Labor	Expenses	Total	
1A	Inventory of Existing Conditions			2	3	40	10	8	32	95	\$ 18,744	\$ 100	\$ -	\$ 18,844
	1A.1	Background, Airport History, and Aeronautical Role	AID/R&A	0	0	1	0	0	0	1	\$ 260			\$ 260
	1A.2 Inventory of Airport Physical Facilities													
	1A.2.1	Airfield	AID/R&A	0	0	1	0	0	0	1	\$ 260			\$ 260
	1A.2.2	Fixed Base Operator/General Aviation Facilities	AID/R&A	0	0	1	0	0	0	1	\$ 260			\$ 260
	1A.2.3	Support Facilities	AID/R&A	0	0	1	0	0	0	1	\$ 260			\$ 260
	1A.2.4	Non-Aeronautical Facilities	AID/R&A	0	0	1	0	0	0	1	\$ 260			\$ 260
	1A.2.5	Facilities Condition and Age Estimation	AID/R&A	0	0	1	0	0	0	1	\$ 260			\$ 260
	1A.3	Airspace Data	AID/R&A	0	0	1	0	0	0	1	\$ 260			\$ 260
	1A.4	Meteorological Conditions	AID/R&A	0	0	1	0	0	0	1	\$ 260			\$ 260
	1A.5 Land Use													
	1A.5.1	On-Airport	AID/R&A	0	0	1	0	0	0	1	\$ 260			\$ 260
	1A.5.2	Off-Airport	AID/R&A	0	0	1	0	0	0	1	\$ 260			\$ 260
	1A.6	Utilities	AID/R&A	0	0	1	0	0	0	1	\$ 260			\$ 260
	1A.7	Socioeconomic Data	R&A	0	1	2	2	0	8	13	\$ 2,130			\$ 2,130
	1A.8	Environmental Conditions	R&A	1	2	12	8	0	16	39	\$ 7,369			\$ 7,369
	1A.9	Tenant Surveys	TQG/R&A	0	0	1	0	0	0	1	\$ 260			\$ 260
	1A.10	Prepare Draft Working Paper	AID/R&A	1	0	8	0	8	8	25	\$ 4,565			\$ 4,565
	1A.11	Meetings (1 in person meeting)	AID/R&A	0	0	6	0	0	0	6	\$ 1,560	\$ 100		\$ 1,660
1B	Emerging Trends and Technologies			0	0	11	12	10	0	33	\$ 6,200	\$ -	\$ -	\$ 6,200
	1B.1	Emerging Trends and Technologies	R&A	0	0	8	4	4	0	16	\$ 3,288			\$ 3,288
	1B.2	Review of General Aviation Industry Trends and Factors Affecting Demand	R&A	0	0	3	8	6	0	17	\$ 2,912			\$ 2,912
1C	Visioning Session with TCAA Board			1	0	10	10	0	0	21	\$ 4,589	\$ 100	\$ -	\$ 4,689
	1C.1	Visioning Session (1 in person meeting)	R&A/AID	1	0	10	10	0	0	21	\$ 4,589	\$ 100		\$ 4,689
1D	Strengths and Opportunities Assessment			1	0	12	10	0	0	23	\$ 5,109	\$ 100	\$ -	\$ 5,209
	1D.1	Strengths and Opportunities Assessment	R&A	0	0	8	10	0	0	18	\$ 3,680			\$ 3,680
	1D.2	Meetings (1 in person meeting, 1 virtual meeting)	R&A/AID	1	0	4	0	0	0	5	\$ 1,429	\$ 100		\$ 1,529
1E	Stakeholder and Public Involvement			2	0	126	0	24	76	228	\$ 46,066	\$ 2,950	\$ -	\$ 49,016
	1E.1 Technical Advisory Panel (3 in person meetings)													
	1E.1.1	Prepare Briefing Materials	R&A	0	0	20	0	0	20	40	\$ 7,600			\$ 7,600
	1E.1.2	Attend and Moderate Technical Advisory Panel Briefings	R&A/AID	0	0	12	0	0	0	12	\$ 3,120	\$ 300		\$ 3,420
	1E.2 Citizens Advisory Panel (3 in person meetings)													
	1E.2.1	Prepare Briefing Materials	R&A	0	0	20	0	0	24	44	\$ 8,080			\$ 8,080
	1E.2.2	Attend and Moderate Citizens Advisory Panel Briefings	R&A/AID	0	0	12	0	0	0	12	\$ 3,120	\$ 300		\$ 3,420
	1E.3 Titusville-Cocoa Airport Authority Workshops (2 in person meetings)													
	1E.3.1	Prepare Workshop Materials	R&A/TQG	0	0	12	0	12	0	24	\$ 4,824			\$ 4,824
	1E.3.2	Conduct Workshops	R&A/AID	0	0	8	0	0	0	8	\$ 2,080	\$ 75		\$ 2,155
	1E.4 Titusville-Cocoa Airport Authority Briefings (2 in person meetings)													
	1E.4.1	Prepare Briefing Materials	R&A	0	0	6	0	12	0	18	\$ 3,264			\$ 3,264
	1E.4.2	Attend Board Meetings and Conduct Briefing	R&A	0	0	6	0	0	0	6	\$ 1,560	\$ 75		\$ 1,635
	1E.5 Public Workshops (2 in person meetings)													
	1E.5.1	Prepare Workshop Materials	R&A/TQG	0	0	24	0	0	32	56	\$ 10,080			\$ 10,080
	1E.5.2	Attend Public Workshops	R&A/AID	2	0	6	0	0	0	8	\$ 2,338	\$ 2,200		\$ 4,538
2	Aerial Surveying and Mapping			0	0	22	0	0	0	22	\$ 5,720	\$ -	\$ -	\$ 5,720
	2.1	Project Planning / FAA Airports-GIS Coordination / Field-Survey Consultation	MTZ/R&A	0	0	6	0	0	0	6	\$ 1,560			\$ 1,560
	2.2	Imagery Acquisition (Flight Mission)	MTZ	0	0	0	0	0	0	0	\$ -			\$ -
	2.3	Aero-Triangulation	MTZ	0	0	0	0	0	0	0	\$ -			\$ -
	2.4	Orthophoto Production	MTZ	0	0	0	0	0	0	0	\$ -			\$ -
	2.5	Planimetric/Topographic Mapping	MTZ/R&A	0	0	6	0	0	0	6	\$ 1,560			\$ 1,560
	2.6	Airspace Analysis/Obstruction Survey	MTZ/R&A	0	0	6	0	0	0	6	\$ 1,560			\$ 1,560
	2.7	Mapping Edit and GIS Formatting/FAA Compliance	MTZ	0	0	0	0	0	0	0	\$ -			\$ -
	2.8 Field-Survey Services													
	2.8.1	Establish Geodetic Control / Validate Existing PACs / SACs	B&P/R&A	0	0	2	0	0	0	2	\$ 520			\$ 520
	2.8.2	Runway Surveys	B&P/R&A	0	0	1	0	0	0	1	\$ 260			\$ 260
	2.8.3	NAVAID Surveys	B&P/R&A	0	0	1	0	0	0	1	\$ 260			\$ 260
3	Aviation Activity Forecasts			6	0	46	30	82	0	164	\$ 30,738	\$ -	\$ -	\$ 30,738
	3.1	Analysis of Historical Activity Patterns	R&A	0	0	2	12	8	0	22	\$ 3,576			\$ 3,576
	3.2	Develop Aviation Activity Forecasts	R&A	2	0	12	18	24	0	56	\$ 10,186			\$ 10,186
	3.3	Identify Critical Aircraft	R&A	0	0	4	0	4	0	8	\$ 1,608			\$ 1,608
	3.4 Deliverables													
	3.4.1	Prepare Draft Working Paper	R&A	2	0	10	0	24	0	36	\$ 6,786			\$ 6,786

LEGEND

\$	389.00	\$	330.00	\$	260.00	\$	160.00	\$	142.00	\$	120.00
----	--------	----	--------	----	--------	----	--------	----	--------	----	--------

As of 5/13/2022

Merritt Island Airport (COI)
 Airport Master Plan Update
 Labor/Fee Estimate Summary - Ricondo & Associates, Inc.

LEGEND

Highlighted tasks include elements that are applicable to the TIX, COI, and X21 Airport Master Plan Updates. The total costs for these tasks have been spread across the three Airport Master Plans. The hours and expenses on this Labor/Fee Estimate Summary do not reflect task totals, only the portion allocated to this Airport Master Plan.

BILLING RATE (SEE NOTE #1): \$ 389.00 \$ 330.00 \$ 260.00 \$ 160.00 \$ 142.00 \$ 120.00

LABOR ESTIMATE (HOURS)										FEE ESTIMATE (\$)			
Task Number and Description	Responsibility	Officer	Director	Managing Consultant	Senior Consultant	Consultant	Technical Specialist	Total		Labor	Expenses	Sub - consultants Expenses	Total
10.11 Meetings (1 in person meeting)	R&A	0	0	4	0	4	0	8		\$ 1,608	\$ 300		\$ 1,908
11 Exhibit 'A' Airport Property Inventory Map		0	0	4	0	0	10	14		\$ 2,240	\$ -	\$ -	\$ 2,240
11.1 Title Work	AID	0	0	0	0	0	0	0		\$ -			\$ -
11.2 Boundary Survey	AID/B&P	0	0	0	0	0	0	0		\$ -			\$ -
11.3 Exhibit 'A' Airport Property Inventory Map	AID/B&P/R&A	0	0	2	0	0	10	12		\$ 1,720			\$ 1,720
11.4 Prepare Checklist According to SOP 3.00	AID	0	0	1	0	0	0	1		\$ 260			\$ 260
11.5 Meetings (6 virtual meetings)	AID/B&P/R&A	0	0	1	0	0	0	1		\$ 260			\$ 260
12 Documentation		6	0	26	60	84	0	176		\$ 30,622	\$ 6,500	\$ -	\$ 37,122
12.1 Develop PowerPoint Template	TQG	0	0	0	0	0	0	0		\$ -			\$ -
12.2 Executive Summary													
12.2.1 Prepare Executive Summary Brochure	R&A/TQG	2	0	4	16	16	0	38		\$ 6,650	\$ 1,000		\$ 7,650
12.2.2 Prepare Executive Summary Powerpoint	R&A	1	0	8	12	8	0	29		\$ 5,525			\$ 5,525
12.3 Prepare Draft Airport Master Plan Update Report	R&A	2	0	8	8	28	0	46		\$ 8,114	\$ 1,500		\$ 9,614
12.4 Respond to Sponsor, FAA, and FDOT Comments	R&A	0	0	3	12	8	0	23		\$ 3,836			\$ 3,836
12.5 Prepare Final Airport Master Plan Update Report	R&A	1	0	3	12	24	0	40		\$ 6,497	\$ 4,000		\$ 10,497
13 Project Administration and Coordination		0	0	42	12	28	0	82		\$ 16,816	\$ -	\$ -	\$ 16,816
13.1 Grant Services	AID	0	0	0	0	0	0	0		\$ -			\$ -
13.2 Develop Monthly Status Reports	R&A	0	0	16	0	0	0	16		\$ 4,160			\$ 4,160
13.3 Other Meetings (In Addition to those identified within the previous individual tasks)													
13.3.1 Kick-Off Meeting (1 in person meeting)	R&A/AID	0	0	8	0	8	0	16		\$ 3,216			\$ 3,216
13.3.2 TCAA Staff Coordination Calls (12 virtual meetings)	R&A	0	0	12	0	12	0	24		\$ 4,824			\$ 4,824
13.3.3 FAA Coordination Briefings (2 in person meetings)	R&A	0	0	4	8	8	0	20		\$ 3,456			\$ 3,456
13.3.4 FDOT Coordination Briefing (1 virtual meeting)	R&A	0	0	2	4	0	0	6		\$ 1,160			\$ 1,160
14 Noise Analysis (Supplemental Task)		2	29	0	128	119	0	278		\$ 46,899	\$ 10,000	\$ -	\$ 56,899
14.1 Airport Definition in Noise Model	R&A	0	1	0	4	4	0	9		\$ 1,507			\$ 1,507
14.2 Existing and Forecast Activity and Aircraft Fleet Mix	R&A	0	6	0	32	8	0	46		\$ 8,098			\$ 8,098
14.3 Radar Data Collection/Noise Model Flight Track Development	R&A	0	1	0	10	15	0	26		\$ 4,065	\$ 10,000		\$ 14,065
14.4 Runway Use	R&A	0	4	0	8	8	0	20		\$ 3,564			\$ 3,564
14.5 Aircraft Performance Operational Profile	R&A	0	1	0	4	0	0	5		\$ 939			\$ 939
14.6 Aircraft Noise Exposure Contours Baseline (Existing) and Future Contours													
14.6.1 Baseline (Existing) Noise Contours	R&A	0	2	0	16	30	0	48		\$ 7,466			\$ 7,466
14.6.2 Noise Contours for Preferred Alternative (Future Year)	R&A	0	2	0	16	15	0	33		\$ 5,336			\$ 5,336
14.7 Exposure Analysis	R&A	0	2	0	15	23	0	40		\$ 6,306			\$ 6,306
14.8 Deliverables	R&A	2	10	0	23	16	0	51		\$ 9,618			\$ 9,618
Grand Total		28	63	626	444	649	620	2,430		\$ 431,213	\$ 21,650	\$ -	\$ 452,863

Note #1: Billing rates shown here are specific to the staffing plan and specific individuals proposed for this assignment and are lower than the standard hourly rate for each of these labor categories. As such, these rates reflect built up rates utilizing CY 2020 audited overhead rate and a varying profit margin not exceeding 10 percent.

APPENDIX B AMERICAN INFRASTRUCTURE DEVELOPMENT, INC. FEE PROPOSAL

Merritt Island Airport (COI)
Airport Master Plan Update
Labor/Fee Estimate Summary - American Infrastructure Development, Inc.

LEGEND

Highlighted tasks include elements that are applicable to the TIX, COI, and X21 Airport Master Plan Updates. The total costs for these tasks have been spread across the three Airport Master Plans. The hours and expenses on this Labor/Fee Estimate Summary do not reflect task totals, only the portion allocated to this Airport Master Plan.

BILLING RATE: \$ 186.00 \$ 162.00 \$ 133.00 \$ 95.00 \$ 79.00

		LABOR ESTIMATE (HOURS)						FEE ESTIMATE (\$)				
Task Number and Description		Responsibility	Project Manager	Senior Engineer	Planner	Designer	Projects Coordinator	Total	Labor	Expenses	Sub - consultants Expenses	Total
1A	Inventory of Existing Conditions		6	14	142	56	8	226	\$ 28,222	\$ 800	\$ -	\$ 29,022
1A.1	Background, Airport History, and Aeronautical Role	AID/R&A	0	0	8	4	0	12	\$ 1,444			\$ 1,444
1A.2	Inventory of Airport Physical Facilities											
1A.2.1	Airfield	AID/R&A	0	0	8	6	0	14	\$ 1,634			\$ 1,634
1A.2.2	Fixed Base Operator/General Aviation Facilities	AID/R&A	0	0	6	4	0	10	\$ 1,178			\$ 1,178
1A.2.3	Support Facilities	AID/R&A	0	0	4	4	0	8	\$ 912			\$ 912
1A.2.4	Non-Aeronautical Facilities	AID/R&A	0	0	4	0	0	4	\$ 532			\$ 532
1A.2.5	Facilities Condition and Age Estimation	AID/R&A	0	0	6	0	0	6	\$ 798			\$ 798
1A.3	Airspace Data	AID/R&A	0	0	8	0	0	8	\$ 1,064			\$ 1,064
1A.4	Meteorological Conditions	AID/R&A	0	0	8	6	0	14	\$ 1,634			\$ 1,634
1A.5	Land Use											
1A.5.1	On-Airport	AID/R&A	0	0	4	4	0	8	\$ 912			\$ 912
1A.5.2	Off-Airport	AID/R&A	0	0	6	4	0	10	\$ 1,178			\$ 1,178
1A.6	Utilities	AID/R&A	0	14	32	8	0	54	\$ 7,284	\$ 400		\$ 7,684
1A.10	Prepare Draft Working Paper	AID/R&A	6	0	32	16	8	62	\$ 7,524			\$ 7,524
1A.11	Meetings (1 in person meeting)	AID/R&A	0	0	16	0	0	16	\$ 2,128	\$ 400		\$ 2,528
1C	Visioning Session with TCAA Board		1	0	0	0	0	1	\$ 186	\$ 90	\$ -	\$ 276
1C.1	Visioning Session (1 in person meeting)	R&A/AID	1	0	0	0	0	1	\$ 186	\$ 90		\$ 276
1D	Strengths and Opportunities Assessment		1	0	0	0	0	1	\$ 186	\$ 90	\$ -	\$ 276
1D.2	Meetings (1 in person meeting, 1 virtual meeting)	R&A/AID	1	0	0	0	0	1	\$ 186	\$ 90		\$ 276
1E	Stakeholder and Public Involvement		0	0	0	0	0	0	\$ -	\$ -	\$ -	\$ -
1E.1	Technical Advisory Panel (3 in person meetings)											
1E.1.2	Attend and Moderate Technical Advisory Panel Briefings	R&A/AID	0	0	0	0	0	0	\$ -	\$ -		\$ -
1E.2	Citizens Advisory Panel (3 in person meetings)											
1E.2.2	Attend and Moderate Citizens Advisory Panel Briefings	R&A/AID	0	0	0	0	0	0	\$ -	\$ -		\$ -
1E.3	Titusville-Cocoa Airport Authority Workshops (2 in person meetings)											
1E.3.2	Conduct Workshops	R&A/AID	0	0	0	0	0	0	\$ -	\$ -		\$ -
1E.5	Public Workshops (2 in person meetings)											
1E.5.2	Attend Public Workshops	R&A/AID	0	0	0	0	0	0	\$ -	\$ -		\$ -
5	Formulate Alternatives		8	20	40	0	0	68	\$ 10,048	\$ -	\$ -	\$ 10,048
5.6	Develop Rough Order of Magnitude Cost Estimates	AID/R&A	8	20	40	0	0	68	\$ 10,048			\$ 10,048
10	Airport Layout Plan Set		0	0	0	0	0	0	\$ -	\$ -	\$ -	\$ -
10.8	Existing Land Use Drawing	AID/R&A	0	0	0	0	0	0	\$ -			\$ -
10.9	Proposed Land Use Drawing	AID/R&A	0	0	0	0	0	0	\$ -			\$ -
11	Exhibit 'A' Airport Property Inventory Map		4	0	66	30	0	100	\$ 12,372	\$ -	\$ 6,600	\$ 18,972
11.1	Title Work	AID	0	0	8	0	0	8	\$ 1,064		\$ 6,600	\$ 7,664
11.2	Boundary Survey	AID/B&P	0	0	8	0	0	8	\$ 1,064			\$ 1,064
11.3	Exhibit 'A' Airport Property Inventory Map	AID/B&P/R&A	4	0	30	30	0	64	\$ 7,584			\$ 7,584
11.4	Prepare Checklist According to SOP 3.00	AID	0	0	8	0	0	8	\$ 1,064			\$ 1,064
11.5	Meetings (6 virtual meetings)	AID/B&P/R&A	0	0	12	0	0	12	\$ 1,596			\$ 1,596
13	Project Administration and Coordination		32	0	0	0	152	184	\$ 17,960	\$ -	\$ -	\$ 17,960
13.1	Grant Services	AID	24	0	0	0	148	172	\$ 16,156			\$ 16,156
13.3	Other Meetings (In Addition to those identified within the previous individual tasks)											
13.3.1	Kick-Off Meeting (1 in person meeting)	R&A/AID	8	0	0	0	4	12	\$ 1,804			\$ 1,804
Grand Total			52	34	248	86	160	580	\$ 68,974	\$ 980	\$ 6,600	\$ 76,554

APPENDIX C BROWN & PHILLIPS, INC. FEE PROPOSAL

See Attached Proposal for Additional Details

As of 5/13/2022

May 5, 2022

Ms. Timeka Carter
American Infrastructure Development, Inc.
1645 Palm Beach Lakes Boulevard, Suite 1200
West Palm Beach, FL 33401

**Re: Titusville-Cocoa Airport Authority (TCAA) Master Plan Planning Services
Merritt Island Airport (COI) - Ground Control Survey and Airport Layout Plan**

Dear Timeka:

Thank you for the opportunity to provide you with the following services for the subject site. This proposal is based on documentation and information provided by your office. The scope of services is as follows:

SCOPE OF SERVICES

I. TASK 8 FIELD SURVEY SERVICES – GROUND CONTROL SURVEY

Utilizing information from Martinez Geospatial, Inc. (MTZ), we will complete onsite ground control surveys to fulfill the data-collection requirements for updating a paper Airport Layout Plan (ALP). We will collect field survey data in accordance with FAA AC Circulars 150/5300-16B (16B), 150/5300-17C (17C), and 150/5300-18B (18B), as applicable and will include the following from MTZ Scope and Fee Proposal:

Establish Geodetic Control / Temporary Control (Field-Survey)

COI does not have PACs & SACs monuments on the airfield. Therefore, as required by FAA, at least two Temporary Control Marks will be established on the airfield through NGS OPUS. Two independent 4-hour sessions are required per survey mark. Once established, the Temporary Control Marks will serve as the basis of the geodetic control network for the survey project.

Survey Imagery Photo Control (Field-Survey)

Photo-identifiable control points will be selected/set and surveyed for use as ground control for aero-triangulation of the new aerial imagery. Imagery control points will be spread throughout the aerial imagery project-area in a geometric pattern conducive to favorable aero triangulation results. Each imagery control point will be surveyed using RTK survey methods. Imagery Control will be surveyed (properly tied to NSRS) and documented in accordance with AC-150/5300-17C and FAA Airports-GIS requirements. Ground Control data and documentation will be submitted to MTZ for submittal to FAA Airports-GIS along with the Aerial Photography Acquisition Report. It is anticipated that approximately **26** imagery control points will be required. Per FAA requirements, in addition to the imagery control points, an additional **5** Independent Checkpoints will be surveyed and processed through NGS OPUS.

Runway Surveys (Field-Survey)

Brown & Phillips will accomplish field-survey of both runways at COI (11/29); survey tasks will include survey of runway-endpoints and runway-profiles. For each runway-endpoint/threshold a monument will be set (or recovered), surveyed, and documented in accordance with AC-150/5300-18B. Runway-centerline profiles will be surveyed utilizing mobile-RTK methodology; final profile data will be extracted at 50-foot stations for FAA Airports-GIS submission.

NAVAID Surveys (Field-Survey)

Brown & Phillips will accomplish field-survey of visual and electronic NAVAIDs serving the COI airport. Each NAVAID will be surveyed and documented in accordance with AC-150/5300-18B. NAVAID survey data will be properly formatted by MTZ and reported in the FAA Airports-GIS deliverable and the CAD base-map deliverable. The NAVAID survey will include the following:

Airport Beacon	PAPI 11	PAPI 29
Windsocks	ASOS	

TASK 8 DELIVERABLES

As part of **COI Master Plan Update**, Brown & Phillips will provide the following:

FIELD SURVEY SERVICES

- Topographic survey of runway profiles
- Drawing showing control found and utilized for the project
- FAA required field forms and photographs as needed

TASK 8 ITEMS TO BE PROVIDED BY AMERICAN INFRASTRUCTURE DEVELOPMENT (AID)

The following items will be provided to Brown & Phillips by AID:

- Any pertinent maps and plans to aid in this scope of work (PDF and CAD if possible)
- Rectified aerials (if available) of the airport for use as an underlay on the survey drawings
- MTZ will be responsible for coordinating and submitting AGIS deliverables to FAA

II. TASK 11 EXHIBIT 'A' AIRPORT PROPERTY INVENTORY MAP

Task 11.2 Boundary Survey

Brown & Phillips will perform a Boundary Survey of up to 12 parcels combined to form approximately 140± acres assumed to represent property owned by the TCAA, as depicted on the Airport Property Map dated August 2021. Additionally, a maximum of twelve (12) easements are

assumed to be owned by the TCAA. Title reports produced as part of subtask 11.2 will be reviewed to determine encumbrances reflected therein that should be reflected on the boundary survey of each property. Individual small parcels of land originally acquired for noise purposes will not be individually surveyed as part of this project. Property acquired since the August 2021 map will be added to the property inventory.

Once the field data collection is completed and all field QA/QC checks have been made, all raw data files will be processed and subsequently imported into AutoCAD software for the creation of the final project drawings and reports. The final Boundary Survey deliverable will be compiled from all field data collected, a review of all title searches and documentation amassed from public records sources for each individual parcel boundary survey.

The field location of each parcel's boundary monumentation will be compared to the legal description of each parcel and the final location of each parcel boundary will be determined. No improvement locations will be obtained. All work will be performed in accordance with the standards of practice outlined in Chapter 5J-17 of the Florida Administrative Code, pursuant to Section 472.027, Florida Statutes.

Task 11.3 Exhibit 'A' Airport Property Inventory Map

This subtask includes the development of an Exhibit 'A' Airport Property Inventory Map. The deliverable will be prepared at a scale equal to that of the ALP and will depict the existing airport property boundary as well as proposed acquisition areas. The drawing will indicate in matrix form how, when, and from whom the various parcels were acquired. The data table will include (if available): number or letter and area of each parcel or easement, date property was acquired or disposed (recorded date), recorded document number (book/page), encumbrance (if applicable), Brevard County Tax ID, Federal Aid project number under which the property acquisition was reimbursed, type of acquisition (i.e. AIP-noise, AIP entitlement, surplus property, local purchase, local donation, condemnation, other), grantor of property, and acreage. The Exhibit 'A' Airport Property Inventory Map will also document existing easements within the Airport boundary.

The updating of the property map will conform with the guidelines discussed in FAA's Standard Operating Procedure (SOP 3.00) for FAA Review of Exhibit 'A' Airport property Inventory Maps (dated October 1, 2013). FAA SOP 2.00 also provides the same Airport Property Inventory Map/Exhibit A guidelines. To support the submittal of this updated planning product, the Ricondo Team will also review, complete, and submit the Exhibit 'A' Review Checklist that is provided in the FAA SOP 3.00.

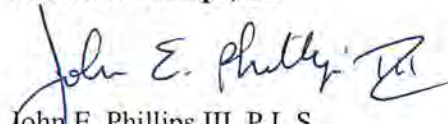
Task 11.6 Meetings

Brown & Phillips will attend up to six (6) virtual meetings as a part of this project.

III. CLOSURE

A drawing will be produced which will show all the features located. Horizontal & vertical accuracy will reflect conformance to FGDC Geospatial Positioning Accuracy Standards. The survey will be performed at two tenths of a foot contour interval and the final drawings will be provided, signed & sealed hard copy plans, one (1) electronic file in AutoCAD format and one (1) copy of survey field notes and calculations. Any additional work will be done on an hourly basis as approved by you. We will perform the scope of services for a **fee of \$46,572.00** (see Attachment 'A' for an hourly breakdown). Please do not hesitate to call me with any questions you might have regarding this proposal. We look forward to working with you on this project.

Brown & Phillips, Inc.


John E. Phillips III, P.L.S.
Principal

Attachments

JEP/mb

This Proposal accepted this ____ day of _____, 2022

By: _____
American Infrastructure Development

Print Name: _____

Title: _____

ATTACHMENT 'A' (1 OF 2)

 TCAA Master Plan Planning Services
 Merritt Island Airport (COI)

Type of Survey: Ground Control & Topographic
 Size: 26 ID's, 2 Runways
 Date: May 5, 2022

TASK 2.8 - Field Surveying Services	SURVEY CREW	CADD TECH	SURVEY TECH	PLS	COMMENTS
Task 2.8.1 Establish Geodetic Control / Temporary Control					
Planning/Control Identification			20	8	Reconnaissance, planning and set-up
Find and Establish Control	30		10	4	Image control checkpoints & recon.
Collection of NAVAIDS	12		5	1	Airport geodetic control validation and prepare reports, set 2 control points
Photo ID's	40		10	2	Locate photo ID points (26± points) 5 independent checkpoints
Total Hours:	82	0	45	15	
Rate/Hour	\$135.00	\$83.00	\$83.00	\$134.00	
Subtotal:	\$11,070.00	\$0.00	\$3,735.00	\$2,010.00	
Total Labor Cost:					\$16,815.00

TASK 2.8 - Field Surveying Services	SURVEY CREW	CADD TECH	SURVEY TECH	PLS	COMMENTS
Task 2.8.2 Runway Surveys					
Collect Runway Ends (11/29)	8		2		Collect horizontal information
Vertical Project Network Control	4		1		Onsite control for profile - check published vertical
Vertical Profile of Runway	10		2		Runway centerline and 50-foot stations
Collect signage and markings not collected from imagery	10		3	1	
Prepare Deliverables		16	16	8	Prepare reports, compile data, prepare drawings
Total Hours:	32	16	24	9	
Rate/Hour	\$135.00	\$83.00	\$83.00	\$134.00	
Subtotal:	\$4,320.00	\$1,328.00	\$1,992.00	\$1,206.00	
Total Labor Cost:					\$8,846.00

ATTACHMENT 'A' (2 OF 2)

 TCAA Master Plan Planning Services
 Merritt Island Airport (COI)

TASK 2.8 - Field Surveying Services	SURVEY CREW	CADD TECH	SURVEY TECH	PLS	COMMENTS
Task 2.8.3 NAVAID Surveys					
Survey visual and electronic NAVAIDs	8		1		Survey and document
Prepare Deliverables			6	1	Prepare reports, compile data, prepare drawings
Total Hours:	8	0	7	1	
Rate/Hour	\$135.00	\$83.00	\$83.00	\$134.00	
Subtotal:	\$1,080.00	\$0.00	\$581.00	\$134.00	
Total Labor Cost:					\$1,795.00

<u>Other Direct Costs:</u>	<u>quantity</u>	<u>unit</u>	<u>cost/unit</u>	<u>total</u>
Per Diem meals for 2	10	days	\$132.00	\$1,320.00
Per Diem lodging for 2	10	days	\$192.00	\$1,920.00
Other				
Total Other Direct Costs:				\$3,240.00

TOTAL PRICE FOR TASK 2: **\$30,696.00**

TASK - 11 Exhibit 'A' Airport Property Inventory Map	SURVEY CREW	CADD TECH	SURVEY TECH	PLS	COMMENTS
Boundary Survey	32		30	4	
Exhibit 'A' Airport Property Inventory Map		8	40	10	
Meetings (6 virtual meetings)			2	6	
Address comments		2	10	2	
Total Hours:	32	10	82	22	
Rate/Hour	\$135.00	\$83.00	\$83.00	\$134.00	
Subtotal:	\$4,320.00	\$830.00	\$6,806.00	\$2,948.00	
Total Labor Cost:					\$14,904.00

<u>Other Direct Costs:</u>	<u>quantity</u>	<u>unit</u>	<u>cost/unit</u>	<u>total</u>
Per Diem meals for 2	3	days	\$132.00	\$396.00
Per Diem lodging for 2	3	days	\$192.00	\$576.00
Other				
Total Other Direct Costs:				\$972.00

TOTAL PRICE FOR TASK 11: **\$15,876.00**

GRAND TOTAL: **\$46,572.00**

APPENDIX D MARTINEZ GEOSPATIAL FEE PROPOSAL

Merritt Island Airport (COI)
Airport Master Plan Update
Labor/Fee Estimate Summary - Martinez Geospatial, Inc.

See Attached Proposal for Additional Details

BILLING RATE: \$ - \$ - \$ -

				LABOR ESTIMATE (HOURS)				FEE ESTIMATE (\$)				
Task Number and Description				Responsibility	Project Manager	Photogrammetrist	CAD Technician	Total	Labor	Expenses	Sub - consultants Expenses	Total
2	Aerial Surveying and Mapping				0	0	0	0	\$ -	\$ -	\$ -	\$ 59,972
2.1	Project Planning / FAA Airports-GIS Coordination / Field-Survey Consultation			MTZ/R&A	0	0	0	0	\$ -			\$ 8,615.36
2.2	Imagery Acquisition (Flight Mission)			MTZ	0	0	0	0	\$ -			\$ 4,000.00
2.3	Aero-Triangulation			MTZ	0	0	0	0	\$ -			\$ 4,352.31
2.4	Orthophoto Production			MTZ	0	0	0	0	\$ -			\$ 7,810.69
2.5	Planimetric/Topographic Mapping			MTZ/R&A	0	0	0	0	\$ -			\$ 13,733.61
2.6	Airspace Analysis/Obstruction Survey			MTZ/R&A	0	0	0	0	\$ -			\$ 12,641.34
2.7	Mapping Edit and GIS Formatting/FAA Compliance			MTZ	0	0	0	0	\$ -			\$ 8,818.40
Grand Total					0	0	0	0	\$ -	\$ -	\$ -	\$ 59,971.71



A GEOSPATIAL SERVICE PROVIDER

Scope and Fee Proposal

Photogrammetry & Airports-GIS Services

Merritt Island Airport (COI)

05/05/2022

2915 Waters Road Suite 100 Eagan, Minnesota 55121

Tel: 651-686-8424 • www.mtzgeo.com

PROJECT SUMMARY

CLIENT	Ricondo
CLIENT CONTACT	Brad Weston
CLIENT ADDRESS	200 E Robinson Street, Suite 300 Orlando, FL 32801
PROJECT LOCATION	Merritt Island Airport (COI)

Martinez Geospatial, Inc. (MTZ) will provide **Ricondo** with Photogrammetry and Airports-GIS services in support of a **Master Plan/Airport Layout Plan** at **Merritt Island Airport (COI)**.

This scope includes tasks required to comply with FAA Airports-GIS program standards. All survey and photogrammetry work will be accomplished in accordance with the following Advisory Circulars:

AC-150/5300-16B (16B)

AC-150/5300-17C (17C)

AC-150/5300-18B (18B)

The FAA Airports-GIS objective for this project is to collect and submit *Safety-Critical* data for the airport. Furthermore, base-mapping (planimetric & topographic data) collected in support of the ALP will be formatted and submitted to FAA Airports-GIS. Specifically, acquisition of data will include an Obstruction Survey/Airport Airspace Analysis, NAVAID inventory & survey, Runway Ends & Profiles survey, and collection (through remote-sensing) of planimetric & topographic data.

MTZ will fulfill the data collection, formatting, and delivery requirements of the FAA Airports-GIS program. In general, MTZ's approach to fulfilling the GIS requirements will be accomplishing those required tasks as outlined in **Table 2-1 (Survey Requirements Matrix)** of **18B, Column "Airport Layout Plan."**

PROJECT SPECIFICATIONS

STATE	FLORIDA
COUNTY	BREVARD
PROJECT TYPE	AVIATION (AIRPORTS-GIS INCLUDED)
COORDINATE SYSTEM	FLORIDA STATE PLANE – EAST ZONE
HORIZONTAL DATUM	NAD83
VERTICAL DATUM	NAVD88 (GEOID18)
FIELD-SURVEY PROVIDED BY	BROWN & PHILLIPS, INC.
MAPPING SCALE	1"=100' & 2' CONTOURS
MAPPING FORMATS REQUIRED	STANDARD CAD w/ DTM and AIRPORTS-GIS
ORTHO RES & PHOTO FORMAT	0.5' GSD, TIF & SID FORMAT

PROJECT AREA DEFINITION

The total project area consists of three components:

AREA A	Planimetric & Topographic Mapping Limit - This area defines the limit for the compilation of planimetric & topographic base-mapping (approximately 172 acres).
AREA B	Part 77/OCS Airspace Analysis Limits - Horizontal Limits of the applicable Obstruction Identification Surfaces (OIS) as defined by FAR Part 77 and AC-150/5300-13B.
AREA C	Airports-GIS Airspace Analysis Limits - Horizontal Limits of the applicable Obstruction Identification Surfaces (OIS) as defined in AC-150/5300-18B.

PROJECT TASKS

Project Planning/Project Management/FAA Airports-GIS Coordination/Field-Survey Coordination

MTZ will assist Ricoondo to develop, submit, and gain approval of the "Statement of Work" for the project through the ADO and FAA Airports-GIS. MTZ will assemble, submit, and gain approval of the AP Acquisition Report through FAA Airports-GIS. MTZ will also coordinate with the field-surveyor to ensure all documentation required by AGIS, related to field-survey, is completed correctly. MTZ will also be available to assist/consult the surveyor in interpretation and application of FAA requirements to field-survey work.

Aerial Imagery Acquisition

New color aerial imagery will be captured for all areas outlined in the **PROJECT AREA DEFINITION** section of this scope utilizing a digital photogrammetric camera. The aerial imagery acquisition flight mission will be executed in accordance with all guidelines and specifications within FAA AC 150/5300-17C.

The aerial imagery acquisition flight mission will consist of a single "block" of imagery, as specified below:

IMAGERY RESOLUTION	PURPOSE/USE
10cm	The coverage limit for this imagery is the horizontal extents of AREA A, AREA B & AREA C . This imagery will be utilized for all photogrammetric data collection, including planimetric/topographic mapping and obstruction surveys/airspace analysis. Ortho-imagery will also be generated for this area at a resolution of 0.50' GSD.

Upon completion of the flight mission, the imagery will be reviewed through in-house Quality Assurance procedures for photogrammetric acceptability and compliance with AC 150/5300-17C requirements.

Establish Geodetic Control / Temporary Control (Field-Survey, Brown & Phillips)

COI does not have PACS & SACS monuments on the airfield. Therefore, as required by FAA, at least two Temporary Control Marks will be established on the airfield through NGS OPUS. Two independent 4-hour sessions are required per survey mark. Once established, the Temporary Control Marks will serve as the basis of the geodetic control network for the survey project.

Survey Imagery Photo Control (Field-Survey, Brown & Phillips)

Photo-identifiable control points will be selected/set and surveyed for use as ground control for aero-triangulation of the new aerial imagery. Imagery control points will be spread throughout the aerial imagery project-area in a geometric pattern conducive to favorable aerotriangulation results. Each imagery control point will be surveyed using RTK survey methods. Imagery Control will be surveyed (properly tied to NSRS) and documented in accordance with AC-150/5300-17C and FAA Airports-GIS requirements. Ground Control data and documentation will be submitted to FAA Airports-GIS along with the Aerial Photography Acquisition Report. It is anticipated that **26** imagery control points will be required. Per FAA requirements, in addition to the imagery control points, an additional **5** Independent Checkpoints will be surveyed and processed through NGS OPUS.

Aero Triangulation

The newly acquired digital aerial imagery will be imported onto a digital photogrammetric workstation where it will be oriented with field-surveyed ground control. This procedure will establish both horizontal and vertical control for orienting individual photogrammetric models. This orientation will be accomplished using Soft Copy Aerial Triangulation methods.

Create Digital Ortho Imagery

Digital orthophotos will be produced to meet the needs of Ricondo and the Airport as well as to comply with the requirements of the FAA Airports-GIS program and AC 150/5300-17C. One set of orthophotos will be produced. Orthophotos will cover the following defined areas and meet the following specifications:

RESOLUTION	COVERAGE LIMIT
0.50' GSD	AREA C (see attached exhibit)

Runway Surveys (Field-Survey, Brown & Phillips)

Field Surveyors will accomplish survey of the runway at COI (11/29); survey tasks will include survey of runway-end-points and runway-profiles. For each runway-end-point/threshold a monument will be set, surveyed, and documented in accordance with AC-150/5300-18B. Runway-centerline profiles will be surveyed utilizing mobile-RTK methodology; final profile data will be extracted at 50-foot stations for FAA Airports-GIS submission. Runway survey data will be utilized for the Obstruction Surveys/Airport Airspace Analysis task. Furthermore, MTZ will identify Airport Reference Point, Airport Elevation, High & Low Elevations of each Runway, and Touchdown Zone Elevations for each runway utilizing the newly surveyed Runway Data. Runway survey data will also be properly formatted by MTZ and reported in both the FAA Airports-GIS deliverable and the CAD base-map deliverable.

NAVAID Surveys (Field-Survey, Brown & Phillips)

Surveyors will accomplish field-survey of visual and electronic NAVAIDs serving the COI airport. Each NAVAID will be surveyed and documented in accordance with AC-150/5300-18B. NAVAID survey data will be properly formatted by MTZ and reported in both the FAA Airports-GIS deliverable and the CAD base-map deliverable. The NAVAID Survey will include the following:

<i>Airport Beacon</i>	<i>PAPI 11</i>	<i>PAPI 29</i>
<i>Windsocks</i>	<i>ASOS</i>	

Airport Airspace Analysis/Obstruction Surveys

18B/AGIS

Airport Airspace Analysis data collection will be completed for both runways at COI. Obstacle data collection/submission will be accomplished in accordance with all relevant sections of AC-150/5300-18B, Section 2.7.1 and the FAA Airport Airspace Analysis Checklist. Airport Airspace Analysis will be accomplished to the following standards:

RUNWAY	AGIS ANALYSIS TYPE
11/29	Runways-With-Vertical-Guidance

Formatting of final reported 18B/AGIS obstacles will adhere to the specifications of AC 150/5300-18B, Chapter 5 *Airport Data Features*.

Part 77/Obstacle Clearance Surface (OCS)

An FAR Part 77 and an OCS Obstruction Survey will be performed for all runway ends. Utilizing the digital 3D stereo imagery, the prescribed Part 77 & OCS Obstruction-Identification-Surfaces will be examined and analyzed to identify natural and manmade objects penetrating the surfaces. OCS Surfaces will be based on the requirements of AC-150/5300-13B (Tables 3-2, 3-3, 3-4, and 3-5).

The Part 77 Obstruction Survey will meet the following specifications:

RUNWAY	PART 77 ANALYSIS TYPE
11	Non-Precision-Utility (ANP)
29	Visual-Utility (AV)

The OCS Obstruction Survey will meet the following specifications (OCS Numbers are taken from AC-13B, Tables 3-2, 3-3, 3-4, and 3-5).

RUNWAY	OCS ANALYSIS TYPE
11	OCS 5 (<i>$\geq 3/4$sm Visibility Minimums, Visual Approach Segment</i>)
11	OCS 6 (<i>Vertical Guidance Surface</i>)
11	OCS 7 (<i>Departure Surface</i>)
29	OCS 2 (<i>Visual, Small Aircraft w/ approach speeds 50kts or more</i>)
29	OCS 7 (<i>Departure Surface</i>)

Part 77/OCS Collection Criteria

The obstruction-identification-surfaces, defined in the previous section, will be digitally referenced with the 3D Stereo Imagery. Utilizing the 3D imagery, trained technicians will visually examine all surfaces and collect X-Y-Z point data for objects meeting collection criteria. Collected data will then be mathematically analyzed against the surfaces using custom processes to produce a final dataset. Multiple Quality-Assurance processes are performed for obstruction data through the project life cycle to ensure accuracy and completeness. Data will be collected to fulfill the following criteria:

- 1) A single X-Y-Z point will be collected / analyzed for any manmade or natural object penetrating a surface. The point will be placed on the highest point of the object. The X-Y location will correspond to the horizontal position of the highest portion of the object, not necessarily the geometric center or middle of the object.
- 2) Occasionally with Obstruction Surveys, large group of trees or terrain (obstruction area) are found to penetrate a surface and it is not feasible or possible to collect each individual penetration. In these cases, the obstruction area will be outlined with a bounding polygon in order to represent the horizontal extents of the area. A grid will then be overlaid on the obstructing area. Within each grid sector, the highest object will be collected. Within the primary surface, the transitional surface, and within the approach surface, 100-foot grid spacing will be used. 200-foot grid spacing will be used within the horizontal surface. Within the conical surface, 500-foot grid spacing will be used.

Supplemental Obstacle Collection

Within the first 5,000 feet of the Departure Surface (also applied to the visual runways), MTZ will collect significant manmade and natural objects with no exemptions based on negative penetration value. For manmade objects, all buildings, utility poles, antennas, towers, and prominent objects will be collected (small objects, such as mailboxes, posts, and utility boxes will be ignored). For roadways (including highways) and railroads, the proper Part 77 offset will be applied according to the type of vehicular traverse way (official Vehicle Service Roads will be included and NAVAID Service Roads will be excluded). For vegetation, significant singular trees will be collected to the extent possible/feasible. In large areas of dense vegetation, a bounding polygon will be drawn to show the extents of the area. A 100-foot grid will be applied and the highest vegetation point within each grid-sector will be collected.

Deliverable Format for Part 77 and OCS Obstacle Data

DELIVERABLE	DESCRIPTION
Shapefile and CAD File	These files will contain the following pieces of data: <ol style="list-style-type: none"> 1) Obstruction Surface Linework 2) Obstruction X-Y-Z Points 3) Obstruction Area Polygon (if applicable) 4) Obstruction Area Grid (if applicable)
Attributes will be included in the Shapefile as Object Data. For the CAD version, attributes will be provided in Spreadsheet Format and can be cross-referenced with the CAD file by Object Number.	Shapefiles will contain the following pieces of object data: <ul style="list-style-type: none"> • Object type • Northing / Easting / Elevation (MSL) • Latitude/Longitude • AGL Height (as able, for penetrating objects only) • Height-Above-Runway-End • Height-Above-Touchdown-Zone • Height-Above-Airport-Elevation • Distance-to-Runway-End

	<ul style="list-style-type: none"> Distance-From-Runway-Centerline (and direction) Penetration Value (if applicable) Surface Affected & Slope (if applicable)
--	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Planimetric & Topographic Mapping Compilation

Utilizing the aerotriangulated digital imagery, photographic stereo pairs will be oriented and compiled on digital photogrammetric workstations within **AREA A**.

Mapping data will be compiled meeting the following specifications:

PLANIMETRIC DATA SCALE	1"=100' SCALE (CLASS II STANDARDS)
TOPOGRAPHIC DATA SCALE	2' CONTOUR INTERVAL (CLASS II STANDARDS)

MAPPING DELIVERABLE	FORMAT
PLANIMETRIC FILE	AUTOCAD (Other formats available upon request)
CONTOUR FILE	AUTOCAD (Other formats available upon request)
DIGITAL-TERRAIN-MODEL FILE	AUTOCAD (Other formats available upon request)

Planimetric Features will include (but are not limited to):

- Building Outlines
- Airfield Pavement (Aprons, Taxiways, Runways)
- Airfield Paint Markings
- Airfield Signs
- Airfield Lights
- Roadways/Railways/Bridges
- Sidewalks
- Towers/Antennas
- Utilities (Above-Ground & Identifiable in Imagery)

Mapping Edit and GIS Formatting

In addition to generating mapping data in CAD formats, all collected data will be edited and formatted in the appropriate AGIS format. In terms of GIS-attributes, MTZ will be responsible for populating all geospatial-related and/or critical attributes required for upload. In general terms, the final AGIS file created by MTZ will include both Safety-Critical and Non-Safety-Critical Data. This includes the following:

- 1) **Safety-Critical**
 - a. Airport Airspace Analysis Data (Obstacles)
 - b. Runway Survey Data
 - c. NAVAID Survey Data
- 2) **Non-Safety-Critical**
 - a. Planimetric Data
 - b. Topographic Data

Final GIS data will meet the following specifications:

GIS DATA-MODEL UTILIZED	FAA Airports-GIS (<i>AC 150/5300-18B, Chapter 5</i>)
GIS DELIVERY FORMAT	ArcGIS Shapefile

Airports-GIS Data Submission and Final Reporting

All data will be formatted into compliant Airports-GIS format and prepared for submission. Prior to submission, the survey-files will be tested using the FAA's survey-file-test tool in order to ensure acceptability. A "Final Report" will be generated in accordance with Advisory Circular 150/5300-18B and submitted with the final project file. MTZ will coordinate with Ricondo prior to uploading the final submission to AGIS. Following submission, MTZ will periodically follow up with Ricondo until the final submission receives approval by NGS. Project close-out will also consist of ensuring receipt and acceptance of the obstruction survey and digital mapping data by RICONDO, the FAA and NGS.

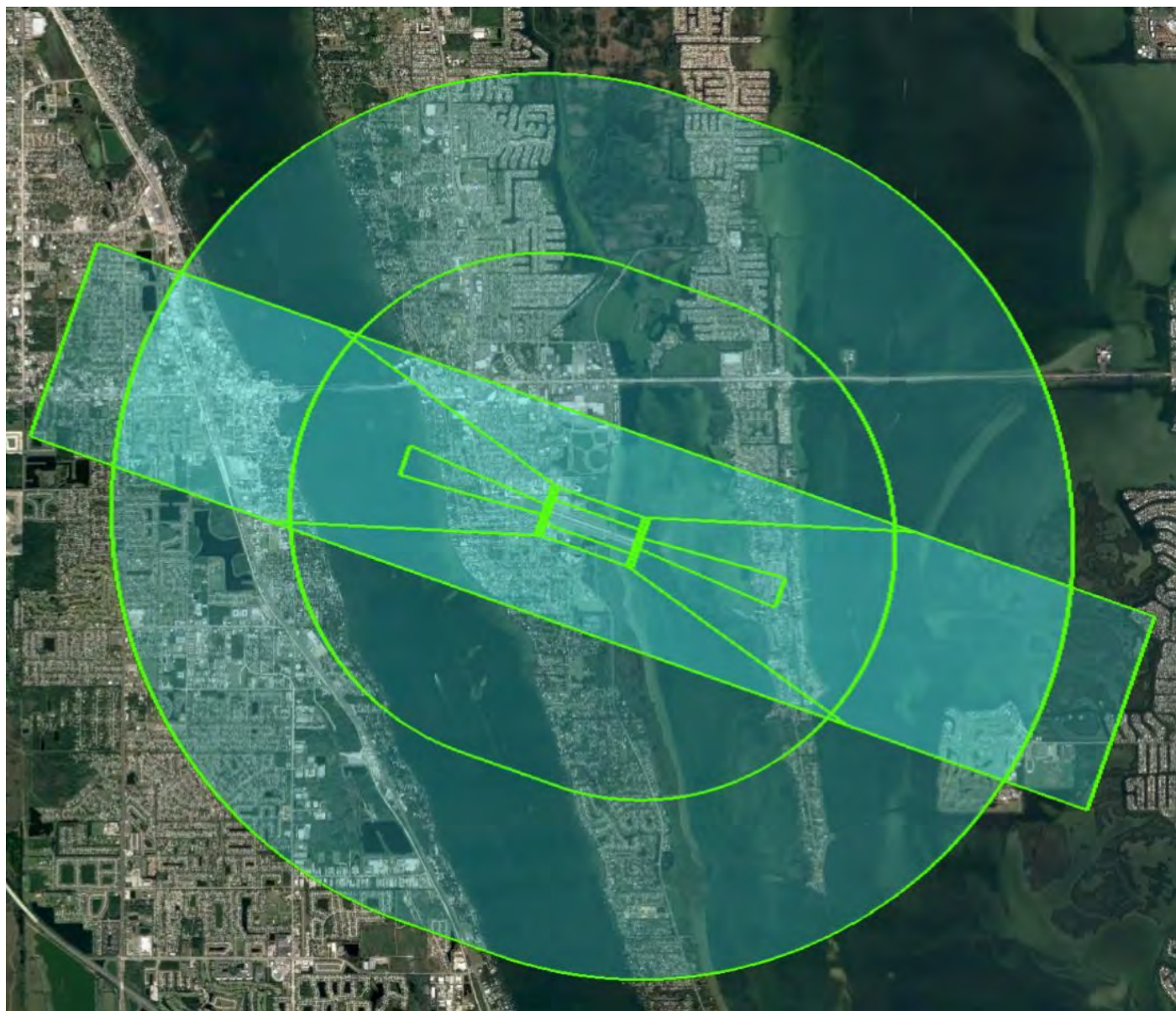
DELIVERABLE SUMMARY
1) Statement of Work Report (for FAA Airports-GIS approval)
2) Aerial Photography Acquisition Report (for FAA Airports-GIS approval)
3) Part 77 & Obstacle-Clearance-Surface Obstruction/Penetration Data
4) Airfield Base-map (Planimetric & Topographic Mapping Data)
5) Supplemental Obstacle Data
6) Digital Ortho Imagery of AREA C (0.50' Resolution)
7) Comprehensive FAA Airports-GIS Deliverable, consisting of: A) Safety Critical Data (Runway, NAVAID, and Airport Airspace Analysis Data) B) Non-Safety Critical Data (Planimetric & Topographic Mapping)
8) Final Report (for FAA Airports-GIS approval)

FEE SCHEDULE

It is understood that compensation for this project will be on a **LUMP SUM** basis. MTZ will invoice Ricondo monthly based on percent-complete of each category below. The following is a proposed fee schedule based on major production processes/work category:

TASK	FEE
Project Planning/Project Management/FAA Airports-GIS Coordination/Field-Survey Consultation	\$ 5,285.04
Production Manager	\$ 3,330.32
Imagery Acquisition (Flight Mission)	\$ 4,000.00
Aerotriangulation	\$ 4,352.31
Orthophoto Production (0.50' GSD)	\$ 7,810.69
Planimetric/Topographic Mapping	\$ 13,733.61
Airspace Analysis/Obstruction Survey (Airports-GIS, Part 77, OCS, & Supplemental Obstacle Data)	\$ 12,641.34
Mapping Edit, GIS Formatting / FAA Compliance (Mapping & Obstruction Survey)	\$ 8,818.40
Field-Survey Services	Not Included
TOTAL	\$ 59,971.71

Airports-GIS Airspace Analysis



Green Polygons - 18B/Airports-GIS Obstruction Identification Surfaces
Cyan Shaded Area - 0.50' GSD Ortho Imagery Limit



MTZ | Martinez Geospatial
2915 Waters Road Suite 100
Eagan, Minnesota 55121
Tel: 651.686.8424 Fax: 651.686.8389



Planimetric & Topographic Mapping



Red Polygon - Planimetric & Topographic Mapping Limit



MTZ | Martinez Geospatial
2915 Waters Road Suite 100
Eagan, Minnesota 55121
Tel: 651.686.8424 Fax: 651.686.8389



APPENDIX E THE QUOTIENT GROUP, INC. FEE PROPOSAL

Merritt Island Airport (COI)
 Airport Master Plan Update
 Labor/Fee Estimate Summary - The Quotient Group

BILLING RATE:	\$	-	\$	125.00
---------------	----	---	----	--------

					LABOR ESTIMATE (HOURS)			FEE ESTIMATE (\$)		
Task Number and Description		Responsibility	Project Manager	Graphic Designer	Total	Labor	Expenses	Sub - consultants Expenses	Total	
1A	Inventory of Existing Conditions		0	32	32	\$ 4,000	\$ -	\$ -	\$ 4,000	
	1A.9 Tenant Surveys	TQG/R&A	0	32	32	\$ 4,000			\$ 4,000	
1E	Stakeholder and Public Involvement		0	60	60	\$ 7,500	\$ -	\$ -	\$ 7,500	
	1E.3 Titusville-Cocoa Airport Authority Workshops (2 in person meetings)									
	1E.3.1 Prepare Workshop Materials	R&A/TQG	0	30	30	\$ 3,750			\$ 3,750	
	1E.5 Public Workshops (2 in person meetings)									
	1E.5.1 Prepare Workshop Materials	R&A/TQG	0	30	30	\$ 3,750			\$ 3,750	
12	Documentation		0	48	48	\$ 6,000	\$ -	\$ -	\$ 6,000	
	12.1 Develop PowerPoint Template	TQG	0	8	8	\$ 1,000			\$ 1,000	
	12.2 Executive Summary									
	12.2.1 Prepare Executive Summary Brochure	R&A/TQG	0	40	40	\$ 5,000			\$ 5,000	
Grand Total			0	140	140	\$ 17,500	\$ -	\$ -	\$ 17,500	

**MASTER SERVICE AGREEMENT
AIRPORT MASTER PLAN UPDATE
ARTHUR DUNN AIRPARK (X21)**

THIS MASTER SERVICE AGREEMENT (the “Agreement”), made and entered into on _____ 2022, by and between the TITUSVILLE-COCOA AIRPORT AUTHORITY (the “Authority”) and RICONDO & ASSOCIATES, INC. (the “Consultant”).

WITNESSETH:

WHEREAS, the Authority as a dependent special district pursuant to section 189.429, Florida Statutes, is authorized to contract for technical services that may be required; and

WHEREAS, the Authority desires to update its airport master plan (the “Master Plan”) for the Arthur Dunn Airpark (“X21”) as is required from time to time by applicable Federal Aviation Administration (“FAA”) regulations (hereinafter referred to the “Project”); and

WHEREAS, the Consultant is willing and able to perform the services to be performed under this Agreement and in relation to the Project upon the terms and conditions set forth herein; and

WHEREAS, a Request for Qualifications for Master Planning Services, RFQ 2022-001 (the “RFQ”), was issued on March 24, 2022 and the Consultant provided the requested Statement of Qualifications (the “SOQ”) and was selected among all of the SOQs received by Authority as the best qualified and capable respondent to fulfill the tasks in that underlying RFQ’s scope of services; and

NOW, THEREFORE, in consideration of the premises and of the mutual covenants hereinafter contained, it is agreed by and between the parties as follows:

ARTICLE I - SCOPE OF SERVICES

1. The Consultant agrees to update the Master Plan for X21 in compliance with FAA Advisory Circular (AC) 150/5070-6B, Change 2, “Airport Master Plans,” the Florida Department of Transportation’s (the “FDOT”) “Airport Master Plan Guidebook (2021)” and in accordance with the specified Tasks and Scope of Work listed in Attachment A – Scope of Services appended hereto and incorporated herein by reference, and to perform other services that may be directed to the Consultant by Authority in relation to the Project.
2. The Consultant may be issued one or more written task orders (each a “Task Order”) during the term of this Agreement. Individual Task Orders submitted by Authority to the Consultant shall address the scope of services, deliverables, cost, time schedule, and any other items deemed necessary by Authority for the successful completion of the task identified in the Task Order. Cost limits and fixed fee amounts for individual Task Orders will be negotiated at the time each Task Order is issued and will be included in the final Task Order. In the event of a conflict between the terms and conditions of this Agreement and a Task Order, the terms and conditions of this Agreement shall control.
3. The Consultant agrees to furnish all labor, materials, services, equipment, tools, and other expenses necessary to diligently and timely perform the professional services required under this Agreement and in compliance with the provisions of Attachment A to this Agreement.

4. The Consultant agrees to comply with all requirements and terms contained in the RFQ which is incorporated into this Agreement by reference. In the event of an express conflict between the RFQ and the terms of this Agreement, this Agreement shall control.

ARTICLE II - PERFORMANCE

1. The term of this Agreement shall be from the date first written above through and including the date Consultant concludes its work on the Project, unless an extension of the term of this Agreement is agreed to in writing signed by all parties to this Agreement and approved by appropriate official action of the governing body of the Authority prior to such term expiration date.
2. In the event that the Consultant performs or causes to be performed any work after: (a) the Agreement's expiration date as set forth within this Agreement, as it may be amended from time to time as set forth above; or (b) termination of this Agreement prior to the expiration date set forth within this Agreement; then the Authority shall make no payment for work performed following the expiration or termination dates, and the Consultant shall forfeit any and all right to payment for such work unless such work is performed after said termination with the express, written authorization of the Authority.
3. The Consultant, on behalf of itself, its officers, directors, shareholders, employees, independent contractors, representatives, attorneys, agents, and assigns, does hereby waive, release, and forever discharge the Authority, and its officers, directors, employees, independent contractors, representatives, attorneys, agents, and assigns, from any and all claims, demands, liens, liability, actions, causes of action, and suits for damages, at law and in equity, in any way connected with or arising from the Consultant's provision of services and work performed following termination of this Agreement, and/or following the expiration date of this Agreement, as it may be amended from time to time through written amendment signed by the parties hereto and approved by appropriate official action of the Authority's governing body, prior to such expiration date.
4. Neither the Authority nor its officers, directors, agents, contractors, and employees shall have authority to extend this Agreement beyond the expiration date set forth within this Agreement unless such extension is set forth within a written amendment signed by the parties hereto and approved by appropriate official action of the Authority's governing body prior to such expiration date. The Consultant shall not rely upon any oral or written representations expressed extrinsic to a written amendment signed by the parties hereto and approved by appropriate official action of the Authority's governing body prior to such expiration date, purporting to alter or amend this Agreement, including, but not limited to, representations relating to the extension of the Agreement's expiration date.
5. Paragraphs 1 through 6 of this Article II - Performance shall survive the termination and expiration of this Agreement.
6. The Consultant shall not proceed with work until the Consultant receives a written "Notice to Proceed" (each a "NTP") from the Authority. Upon receipt of the NTP, the Consultant shall begin to perform the work set forth in the Scope of Services (Attachment A). If the Consultant does commence said work prior to receiving the NTP or performs work not identified in Attachment A, at the request of the Authority, the Consultant does so at its own risk.
7. In the event the Authority discovers a Consultant's error or omission before its discovery by the Consultant, the Authority shall not unreasonably delay in notifying Consultant of such error or

omission in writing. Authority's notice to Consultant shall specify the maximum time period Consultant will be allowed for correction. The Consultant shall make all necessary corrections resulting from its errors and omissions and shall without delay make any corrections necessitated by the negligence, lack of adequate resources, or any other cause within the Consultant's control, and shall make such corrections without additional compensation. Consultant shall track all related costs for the correction. Acceptance of the professional services by the Authority will not relieve the Consultant of the responsibility for any subsequent correction of any such errors and omissions, and the clarification of any ambiguities. The Consultant will be responsible for additional costs in subsequent, related services and/or actions resulting from its errors or omissions. Should the Authority use its own personnel and/or resources to remedy the deficiency, all such costs incurred by the Authority shall be deducted from the sum due or which may become due to the Consultant. In the event all such costs and charges incurred by the Authority exceed the sum which would have been payable under this Agreement, then the Consultant shall reimburse the Authority the amount of said excess within thirty (30) days of receipt of written notice from Authority requesting payment of same.

8. The Consultant shall assign one (1) individual throughout the period of this Agreement who shall have overall Project responsibility unless illness or termination requires replacement. In the event Consultant wishes to change the assigned individual, it shall provide advanced, written notice of the change to Authority. Authority shall be entitled to rely on the decisions and representations of said individual, who shall have the actual and apparent authority to bind Consultant to said decisions and representations.
9. A key person is defined as any individual identified by the Consultant in its Statement of Qualifications (the "SOQ") proposal as being part of the team to be assigned to the Project. The Consultant acknowledges and agrees that the award reflected in this Agreement was based, in material part, on its ability to manage the Project and the qualifications, experience, and capacity of the Consultant's aforementioned key persons, employees, agents and team. The Consultant represents, warrants, and covenants that such key persons are, and will continue to be, available to undertake and perform all services identified herein and fulfill the roles identified in its SOQ. The Consultant shall notify the Authority in writing within ten (10) calendar days when a key person leaves the Project team.
 - a. If a key person leaves the Project team, the Consultant shall promptly propose a replacement within thirty (30) calendar days to and for the Authority's review and written consent.
 - b. The Authority shall have the unilateral right to terminate this Agreement:
 - i. If a key person leaves the Project team for a reason other than death, retirement, incapacitation, or leaving Consultant's employment (including the employment with Consultant's affiliates, subsidiaries, and parent companies/organizations);
 - ii. If a key person listed by the Consultant in its proposal to perform or supervise various aspects of design is changed or leaves the Project team; or
 - iii. If the Authority does not accept the Consultant's proposed key person replacement; or
 - iv. If any material delay in the appointment of key person(s) replacement(s) by Consultant results in unreasonable delay to the Project as determined by Authority in its reasonable discretion.
10. If this Agreement is terminated pursuant to the above, the Consultant shall be paid for actual costs incurred for all services rendered and accepted by the Authority along with an amount of fee proportional to the work completed as of the date of termination with said amounts for completed

work corresponding to the amounts set forth generally in Consultant's bid documents for the Project as accepted by the Authority. Additionally, the Consultant shall not be entitled to any settlement costs, if any. Such termination will not occur if the Consultant provides a key person replacement that is acceptable to the Authority within thirty (30) calendar days of the date when the key person is changed or has left the Project team.

11. The Consultant shall at all times maintain control over and have complete responsibility for all services performed pursuant to this Agreement by the Consultant and any of its subcontractors.
12. The Consultant warrants that all deliverables and professional services produced under this Agreement shall be completed in a workmanlike manner consistent with standards in the trade, profession, or industry. The standard of care applicable to Consultant's services will be that degree of skill and diligence normally employed by consultants performing the same or similar services at the time said services are performed. To the extent there is any dispute between the parties concerning the provisions of this paragraph and quality of work performed by Consultant, the Authority's position and decision on the same shall control as long as the Authority's position and decision is not arbitrary or unreasonable.
13. This Agreement and any authorized amendments may be suspended temporarily, either wholly or in part, by the Authority upon oral notice confirmed in writing within ten (10) calendar days, when the Authority determines that conditions beyond the control of the Consultant are unfavorable to its satisfactory continuation of work. Should such conditions be encountered, the time for completion may be extended in an amount determined by the Authority to be equivalent to the delay. Requests for suspension of time by the Consultant must have the written approval of the Authority to be relied upon and effective. No allowance shall be made for delay or suspension of the services solely due to the fault of the Consultant.
14. Any amendment ordered by the Authority in writing which changes the services provided for by the express terms of this Agreement will be considered extra professional services and shall be specified in a written amendment signed by all parties hereto, which will set forth the nature and scope thereof. The method of payment for extra professional services shall be specified at the time the amendment is written. No verbal or oral changes to the scope of services to be provided by Consultant pursuant to this Agreement shall be effective or shall alter or modify this Agreement in any way unless in writing and signed by all parties hereto. Consultant shall not perform any services not expressly provided by and in this Agreement except as set forth in this paragraph.
15. The Consultant shall not assign or subcontract any or all of the professional services performed under this Agreement without the prior written approval of the Authority. The Consultant will, subsequent to obtaining written approval from the Authority, provide the Authority with a copy of the contract or agreement for professional services.
16. The Consultant shall require its subcontractors to comply with all provisions of 48 C.F.R. Chapter 1, Part 31, and, if the subcontract agreement exceeds One Hundred Thousand and No/00 Dollars (\$100,000.00), the subcontract agreement shall also comply with Paragraph 17 in of this Article. The Consultant will be responsible for any costs or deficiencies resulting from noncompliance if the subcontractors fail to comply with 48 C.F.R. Chapter 1, Part 31, and shall indemnify and hold Authority harmless from same. Any attempted assignment of rights or delegation of duties under this Agreement without the prior written consent of the Authority shall be void.

17. There are no Disadvantaged Business Enterprise (DBE) program goals for this Agreement. However, the Authority, in accordance with Title VI of the Civil Rights Act of 1964 and 49 C.F.R. Part 26, hereby notifies all bidders and proposers that it will affirmatively ensure that in regard to any contract entered into, certified DBE firms will be afforded full opportunity to submit bids and proposals in response to our invitation and will not be discriminated against on the grounds of race, color, sex, age, disability, or national origin in consideration for an award. Although there is no contract-specific goal associated, the Authority encourages Consultant to make the same effort to ensure nondiscrimination in the award and administration of subcontracts, to help remove barriers to the participation of DBEs, and to assist in the development of firms that can compete successfully in the marketplace outside the DBE program.
18. This Agreement is contingent upon the verification that the Consultant has a valid and active Florida Business License and is in good standing in all areas of the Secretary of State's business requirements. If the Consultant is an out of state provider, the Consultant must be registered as a foreign business entity equivalent in Florida, in active status, and in good standing.

ARTICLE III - TERMINATION

1. The Authority may terminate this Agreement without cause thirty (30) calendar days after service of a termination letter to the Consultant. In the event this Agreement is terminated in this manner, the Consultant shall be paid for the actual cost of the professional services which have been completed and accepted by the Authority up to the date of termination with said cost for completed work corresponding to the amounts set forth generally in Consultant's bid documents for the Project as accepted by the Authority.
2. This Agreement is subject to and contingent upon sufficient funds being appropriated, budgeted, and otherwise made available by the Federal Aviation Administration (FAA) and/or Florida Department of Transportation (FDOT) sources. The Authority may terminate this Agreement, and the Consultant waives any and all claims for damages, effective immediately upon receipt of written notice, or any date specified therein, if for any reason the Authority's funding from federal and/or state sources is not appropriated or is withdrawn, limited, or impaired.
3. A default or breach may be declared with or without termination. This Agreement may be terminated by either party upon written notice of default or breach to the other party as follows:
 - a. If, in the Authority's sole but reasonable discretion, the Consultant fails to provide or satisfactorily perform any of the professional services called for by this Agreement within the time requirements specified in this Agreement or within any granted extension of those time requirements; or
 - b. If any state, county, city, or federal license, authorization, waiver, permit, qualification, or certification required by statute, ordinance, law, or regulation to be held by the Consultant to provide the goods or services required by this Agreement is for any reason denied, revoked, debarred, excluded, terminated, suspended, lapsed, or not renewed; or
 - c. If the Consultant becomes insolvent, subject to receivership, or becomes voluntarily or involuntarily subject to the jurisdiction of a bankruptcy court; or
 - d. If Authority materially breaches any material duty under this Agreement and any such breach impairs the Consultant's ability to perform; or

- e. If it is found by the Authority that any quid pro quo or gratuities in the form of money, services, entertainment, gifts, or otherwise were offered or given by the Consultant, or any agent or representative of the Consultant, to any officer or employee of the Authority with a view toward securing an agreement or securing favorable treatment with respect to awarding, extending, amending, or making any determination with respect to the performing of such agreement; or
 - f. If the Consultant knowingly bills the Authority for unallowable costs or non-bona fide goods or services, or for goods and services not provided.
4. Termination upon a declared default or breach may be exercised after service of written notice and the subsequent failure of the defaulting party, within fifteen (15) calendar days of service of that notice, to provide evidence, satisfactory to the aggrieved party, showing the declared default or breach has been corrected or, to the extent such default cannot be entirely cured within said 15-day period, that the breaching party has commenced reasonable corrective action and thereafter diligently pursues such corrective action until the breach is cured. Such correspondence shall be deemed to have been served on the date of postmark or, to the extent such written notice is provided by email, on the date identified in said email as the date of delivery to the receiving party.
 5. In the event of the Consultant's breach of this Agreement, all costs and charges incurred by the Authority, together with the cost of completing the work under this Agreement, shall be deducted from any money due or which may become due to the Consultant, and Authority may withhold any such payment(s) due Consultant until such costs and charges are reasonably known to Authority. If expenses exceed the sum which would have been payable under this Agreement, then the Consultant shall be liable and shall pay to the Authority the amount of said excess.
 6. This Agreement shall be terminated when the professional services contemplated and covered by this Agreement and any related amendments have been completely performed by the Consultant, all items of professional services have been approved and accepted by the Authority, and final payment is made and accepted.

ARTICLE IV - COST

1. "The lump sum" method of compensation shall be used for the Consultant's services.
2. The total cost of the services by the Consultant for the PROJECT shall not exceed the sum of Six Hundred Seven Thousand Two Hundred Seventy-Two Dollars and Eighty-Nine Cents (\$607,272.89). Funds not used during the term of this Agreement will not be paid to the Consultant.
3. The total amount payable by the Authority for the PROJECT shall not exceed the amount agreed to in this Agreement, unless additional funds are agreed to by written amendment and signed by all parties hereto.
4. The cost of the work to be performed under this Agreement will be paid for by the Authority monthly and upon acceptance of the work.
5. No additional costs shall be allowed to the Consultant for assistance by or services of others except by express permission in writing by the Authority.

6. The Authority shall pay the Consultant in installments, based upon monthly progress reports showing the status of the professional services, and the degree of completion. The Authority, at its discretion, may, by written notification, waive this limitation.
7. The Consultant's cost billing, reimbursement, and audit will be accomplished in accordance with the federal cost principles set forth in 48 CFR Chapter 1, Part 31.
8. The Consultant is required to submit a monthly progress report in the Authority's format showing the status of the professional services and the degree of completion thereof.

ARTICLE V - SCHEDULE OF PAYMENTS

1. The Consultant shall submit a signed invoice monthly for all services rendered along with one (1) copy of substantiating documentation. The invoice must be submitted on the Consultant's stationery using a format acceptable by the Authority. The Authority will utilize its normal accounting procedure in the payment of the invoices submitted.
2. The Authority reserves the right to inspect and approve the professional services performed before payment is made to the Consultant. Payment will be withheld for deliverables and professional services the Authority determines in its sole but reasonable discretion to be unsatisfactory in that they have not been provided in a workmanlike manner consistent with standards in the trade, profession, or industry. Payment shall remain unpaid until the professional services are completed in accordance with the standards and work requirements defined in this Agreement. In such an event, the Authority will provide the Consultant with a written explanation as to why payment has been withheld.
3. The total cost of services for this Agreement is the negotiated amount identified in Article IV, Paragraph 2. This amount was based upon the Consultant's labor and expenses as well as the costs and fixed fees of all of its subcontractors. If a subcontractor does not expend all funds allocated to it pursuant to Contractor's bid for services identified in its agreement with the Consultant, Consultant shall not redistribute or expend such funds without the prior written approval of the Authority. Failure to notify the Authority prior to the use of such funds will constitute grounds for denial of reimbursement for such expenditures or, to the extent such reimbursement has already been paid to Consultant, Consultant shall repay such reimbursement to Authority in full.
4. Payment of invoices, interest penalties, and discounts shall be paid as follows:
 - a. The Consultant shall be paid within thirty (30) calendar days after receipt of federal funds approved for a postmarked invoice which is complete, correct, and undisputed by the Authority.
 - b. The Authority shall have twenty-one (21) calendar days after postmark of an invoice to dispute any or all of the charges on that invoice. The undisputed amount shall be paid to the Consultant within thirty (30) calendar days after receipt of the federal funds for the approved invoice. The disputed amount shall be negotiated and resolved in good faith by both parties hereto and paid within thirty (30) calendar days after the date the corrected invoice is received by the Authority or is approved by both parties hereto for payment.
 - c. If the Authority fails to pay the Consultant the undisputed amount within sixty (60) calendar days after receipt of federal funds for the approved invoice, the interest penalty assessed to the

Authority shall be one percent (1%) of the undisputed amount per month, not to exceed a total of One Thousand and No/100 Dollars (\$1,000.00).

- d. Payment of penalties shall not apply to the final payment or bill pertaining to this Agreement as determined by the post audit.
5. The prevailing party in any action arising from and/or related to this Agreement is entitled to recover its reasonable attorney's fees and costs incurred in such action from the non-prevailing party.

ARTICLE VI – INDEMNIFICATION

Consultant shall indemnify and hold harmless Authority and its officers, directors, employees, agents and assigns from any and all liability, losses or damages, including reasonable attorneys' fees and costs of defense, that Authority incurs or may incur as a result of claims, demands, suits, causes of action or proceedings of any kind or nature arising out of, relating to or resulting from the negligence or wrongful acts and/or omissions of Consultant and/or its officers, directors, employees, agents, subcontractors or assigns. Consultant shall pay all claims and losses in connection therewith and shall investigate and defend all claims, suits or action of any kind or nature in the name of Authority, where applicable, including appellate proceedings, and shall pay costs, judgments and reasonable attorney's fees which may issue thereon. Consultant expressly understands and agrees that any insurance protection required by this Lease or otherwise provided by Consultant shall in no way limit its responsibility to indemnify, keep and save harmless and defend the Consultant and/or its officers, directors, employees, agents, subcontractors or assigns as herein provided. The obligation of Consultant hereunder shall survive the termination of this Agreement. Consultant's obligation to indemnify Authority hereunder shall in no way affect, abridge or amend Authority's right to assert governmental or sovereign immunity as to any claims, other than those by the parties or their respective permitted transferees and assignees, including without limitation the immunity afforded under section 768.28, Florida Statutes.

ARTICLE VII – MISCELLANEOUS PROVISIONS

1. The Consultant shall be responsible for and shall comply with all applicable federal, state, and local government obligations and Authority policies and procedures. The Consultant will be responsible for and shall pay all taxes, assessments, fees, premiums, permits, and licenses required by law. The Consultant warrants that it has a valid business license. The Consultant agrees to be responsible for and shall pay any such government obligations not paid by its subcontractors during performance of this Agreement. The Authority may set-off any consideration due against any delinquent government obligation.
2. It is expressly understood that the Consultant is an independent contractor and is subject to all federal and state statutes and laws relating to independent contractors. Nothing contained in this Agreement shall be deemed or construed to create a partnership or joint venture, to create relationships of an employer-employee or principal-agent, or to otherwise create any liability for the Authority whatsoever with respect to the indebtedness, liabilities, and obligations of the Consultant or any other party. Neither the Consultant nor its employees, agents or representatives shall be considered employees, agents, or representatives of the Authority.
3. The Consultant shall be solely responsible for its own employees, and the Authority shall have no obligation with respect to:

- a. Withholding of income taxes, FICA, or any other taxes or fees;
 - b. Industrial insurance coverage;
 - c. Participation in any group insurance plans available to employees of the Authority;
 - e. Accumulation of vacation leave or sick leave; and/or
 - f. Unemployment compensation coverage provided by the Authority.
4. The Consultant shall indemnify and hold the Authority harmless from, and defend the Authority against, any and all losses, damages, claims, costs, penalties, liabilities, and expenses arising or incurred because of, incident to, or otherwise with respect to any such taxes, fees, insurance, contributions, leave, or coverage.
 5. Unless expressly provided in this Agreement, the Consultant shall not engage or use the devices and/or services of the Authority's personnel without the prior written consent of the Authority.
 6. The Consultant shall, before commencing professional services under the provisions of this Agreement, furnish to the Authority proof of worker's compensation insurance as required by the State of Florida.
 7. The Consultant shall furnish a Certificate of Errors and Omissions Insurance with a minimum limit of One Million and No/100 Dollars (\$1,000,000.00).
 8. The Consultant shall furnish a Certificate, a Declarations Page, and an Endorsement designating the Authority as an additional insured evidencing Commercial General Liability Insurance with a minimum limit of One Million and No/100 Dollars (\$1,000,000.00) per occurrence. These policies shall be maintained for the entire period that work is conducted under this Agreement. The Consultant shall provide replacement evidence of insurance no less than thirty (30) calendar days prior to the date of expiration. The policies shall include a thirty (30) calendar day advance written notice of any cancellation of said policies. The Consultant shall furnish the Authority with certificates of such insurance prior to commencement of professional services.
 9. All insurance required by this Agreement shall be placed with insurers with a rating from the current issue of Best's Key Rating Guide of no less than A-: VII.
 10. The Authority has the option of requesting, at any time, a meeting with the Consultant or its authorized representative to discuss and review Project status.
 11. The Consultant has total responsibility for the accuracy and correctness of written data prepared under the terms of this Agreement and shall check all such material accordingly for completeness, missing items, correct multipliers, and consistency. The deliverables shall be reviewed by the Authority for conformity with the Authority's procedures and contract terms. The Consultant acknowledges that review by the Authority does not include detailed review or checking of major components and related details or the accuracy of such deliverables, and the Authority's review shall not relieve the Consultant of its total responsibility for the accuracy and correctness of data prepared under the terms of this Agreement.
 12. The Consultant shall appear as a consultant and, if necessary, as an expert witness on behalf of the Authority in any subsequent court action which involves any of the services required by this

Agreement. Compensation for services rendered in this regard will be paid at a rate to be negotiated at the time such services are necessary.

13. Upon completion, termination, or cancellation of the services embraced under this Agreement, all professional services inclusive of research, investigation, analysis data, reports (including files stored on mobile media), computations, tabulations, original drawings and digital design files (including CAD information stored on mobile media), correspondence input from external sources (including subcontractors), etc., shall be delivered to and become the property of the Authority, without limitation. Reuse of said materials, information or data, during performance or following termination of this Agreement, on any other project or for any other purpose except as provided for herein, shall be at the Authority's sole decision. The Consultant shall not utilize any materials, information, or data obtained as a result of performing the services called for in this Agreement in any commercial or academic publication or presentation without the express written permission of the Authority. The Consultant shall not reference an opinion of an employee or agent of the Authority obtained as a result of performing the services called for in this Agreement, in any publication or presentation, without the written permission of the employee or agent to whom the opinion is attributed, in addition to the written permission of the Authority.
14. All digital copies of reports, graphic data, and other materials shall be delivered to the Authority via a project-specific Dropbox folder. Files shall be prepared using the most current version of Microsoft Word, Microsoft Excel, Microsoft PowerPoint, and AutoCAD. Geographic information systems (GIS), drawings, maps, and other GIS data shall be delivered via Environmental Systems Research Institute (ESRI) data formats or Google Earth Pro KMZ or KML file formats as appropriate for those work products.
15. The Consultant agrees that any reports, materials, studies, photographs, negatives, drawings, or other documents prepared by the Consultant in the performance of its obligations under this Agreement shall be the exclusive property of the Authority. The Consultant shall remit all such documents to the Authority upon completion, termination, or cancellation of this Agreement or upon written request of the Authority. The Consultant shall not use, willingly allow, or cause to have such documents used for any purpose other than performance of the Consultant's obligations under this Agreement, without the prior written consent of the Authority.
16. The Consultant and successors, executors, administrators, and assigns of the Consultant's interest in the professional services or the compensation herein provided shall be bound to the Authority to the full legal extent to which the Consultant is bound with respect to each of the terms of this Agreement.
17. The Consultant warrants that it has not employed or retained any company or persons (other than a bona fide employee working solely for the Consultant) to solicit or secure this Agreement and that the Consultant has not paid or agreed to pay any company or persons (other than a bona fide employee working solely for the Consultant) any fee, commission, percentage, brokerage fee, or any other gifts contingent upon or resulting from the award or making of this Agreement. For breach or violation of this warranty, the Authority shall have the right to annul this Agreement without liability, or, in its discretion, to deduct from the Agreement price or consideration, or otherwise recover, the full amount of such fee, commission, percentage, brokerage fee, gift, or contingent fee.
18. Any dispute arising under this Agreement as to performance, compensation, and the interpretation of satisfactory fulfillment of the terms of this Agreement shall be decided by the Authority. It is the intent of the Authority to resolve disputes at the lowest level possible. Nothing herein contained shall

impair either of the parties' right to file suit in the state district courts of the State of Florida. The parties further agree that sole and exclusive jurisdiction and venue for any action arising from and/or related to this Agreement shall lie irrevocably in the state courts in and for Brevard County, Florida, forsaking all other jurisdictions and venues and without regard to forum non conveniens.

19. During the performance of this Agreement, the Consultant, for itself, its assignees and successors in interest agrees as follows:

- a. Compliance with Regulations: The Consultant shall comply with all of the regulations relative to nondiscrimination in federally-assisted programs of 49 CFR Part 21 as they may be amended from time to time (hereinafter "Regulations"), which are herein incorporated by reference and made a part of this Agreement.
- b. Nondiscrimination: The Consultant, with regard to the professional services performed by it during the Agreement, shall not discriminate on the grounds of race, color, age, religion, sex, creed, handicap, or national origin in the selection and retention of subcontractors, including procurement of materials and leases of equipment. The Consultant shall not participate either directly or indirectly in the discrimination prohibited by Section 21.5 of the Regulations, including employment practices, when the Agreement covers a program set forth in Appendix B of the Regulations.
- c. Solicitations for Subcontracts, Including Procurement of Materials, and Equipment: In all solicitations either by competitive bidding or negotiation made by the Consultant for professional services to be performed under a subcontract, including procurement of materials or leases of equipment, each potential subcontractor or supplier shall be notified by the Consultant of the Consultant's obligations under this Agreement and the Regulations relative to nondiscrimination on the grounds of race, color, age, religion, sex, creed, handicap, or national origin.
- d. Sanctions for Noncompliance: In the event of the Consultant's noncompliance with the nondiscrimination provisions of this Agreement, the Authority shall impose such Agreement sanctions as it or the FAA may determine to be appropriate, including, but not limited to:
 - (1) Withholding of payments to the Consultant under the Agreement until the Consultant complies, and/or in part.
 - (2) Cancellation, termination, or suspension of the Agreement, in whole.
- e. Agreements with subcontractors will include provisions making all subcontractor records available for audit by the Authority or the FAA.
- f. Incorporation of Provisions: The Consultant will include the provisions of Paragraphs (a) through (f) above in every subcontract including procurement of materials and leases of equipment, unless exempt by Regulations, order, or instructions issued pursuant thereto. The Consultant will take such action with respect to any subcontract or procurement as the Authority or the FAA may direct as a means of enforcing such provisions, including sanctions for non-compliance. In the event Consultant becomes involved in, or is threatened with, litigation by a subcontractor or supplier as a result of such direction, the Consultant may request the Authority to enter into such litigation to protect the interests of the Authority, and the Consultant may request the United States to enter into such litigation to protect the interests of the United States.

20. Since federal funds shall be used for payment of all or part of this Agreement, the Consultant, for itself, its assignees, and successors in interest agrees as follows:
- a. Debarment and/or Suspension: The Consultant certifies that neither it nor its subcontractors, nor their principals are presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any federal Authority or agency. Consultant is subject to suspension and debarment actions as specified in 2 CFR Part 1200 and 2 CFR Part 180, potential cause of action under the False Claims Act as specified in 32 U.S.C. §§ 3729-3733, inclusive, and prosecution for making a false statement as specified in 18 U.S.C. § 1020.
 - b. ADA: The Consultant and subcontractor shall comply with all terms, conditions, and requirements of the Americans with Disabilities Act of 1980, as amended, and the regulations adopted thereunder contained in 49 CFR Part 27, and any relevant program- specific regulations.
 - c. Civil Rights: The Consultant and subcontractor shall comply with the requirements of the Civil Rights Act of 1964, as amended, the Rehabilitation Act of 1973, as amended, and any relevant program-specific regulations and shall not discriminate against any employee or person offered employment because of race, national origin, creed, color, sex, religion, age, disability, or handicap condition.
21. Each party agrees to keep and maintain under generally accepted accounting principles full, true, and complete records and documents pertaining to this Agreement and present, at any reasonable time, such information for inspection, examination, review, audit, and copying at any office where such records and documentation are maintained. It is expressly understood that the duly authorized representatives of the Authority, FAA, FDOT and the Department of Transportation's Inspector General, the Comptroller General of the United States, or any of their duly authorized representatives shall have the right to inspect/audit the professional services and charges of the Consultant whenever such representatives may deem such inspection to be desirable or necessary. Such records and documentation shall be maintained for three (3) years after final payment is made.
22. The Consultant shall use its own vehicles, and the Authority is not responsible for the payment of any premiums, deductibles, or assessments on any insurance policies purchased by the Consultant.
23. The Consultant warrants that all deliverables and work produced under this Agreement shall be completed in a workmanlike manner consistent with standards in the trade, profession, or industry.
24. The Consultant agrees that, prior to any sale, transfer, business name change, change in principals, or any other occurrence that alters this Agreement in any way, the Consultant shall notify the Authority of such intent at least seven (7) calendar days prior to making said change.
25. All notices or other communications required or permitted to be given under this Agreement shall be in writing and shall be deemed to have been duly given if delivered personally in hand, by telephonic facsimile with simultaneous regular mail, or mailed certified mail, return receipt requested, postage prepaid on the date posted, and addressed to the other party at the address set forth below:

FOR Authority:

Kevin Daugherty, AAE
Director of Airports
Titusville – Cocoa Airport Authority
355 Golden Knights Blvd.
Titusville, Florida 32870
Phone: (321) 267-8780
Email: kdaugherty@flairport.com

FOR Consultant:

Pete Ricondo, P.E.
Senior Vice President
Ricondo & Associates, Inc.
1000 NW 57th Court, Suite 920
Miami, FL 33126
Phone: (305) 260-2727 x251
Email: pricondo@ricondo.com

26. This Agreement and the rights and obligations of the parties hereto shall be governed by, and construed according to, the laws of the State of Florida.
27. As used herein the term “Consultant” shall include the plural as well as the singular, and the feminine as well as the masculine.
28. Neither party shall be deemed to be in violation of this Agreement if it is prevented from performing any of its obligations hereunder for any reason beyond its control, including, without limitation, strikes, inmate disturbances, acts of God, civil or military authority, act of public enemy, or accidents, fires, explosions, earthquakes, floods, winds, failure of public transportation, or any other similar serious cause beyond the reasonable control of either party. In such an event the intervening cause must not be through the fault of the party asserting such an excuse, and the excused party is obligated promptly to perform in accordance with the terms of this Agreement after the intervening cause ceases.
29. In connection with the performance of work under this Agreement, the Consultant agrees not to discriminate against any employee or applicant for employment because of race, color, religion, sex, national origin, age, disability, pregnancy, sexual orientation, genetic information (GINA) or gender identity or expression, including, without limitation, with regard to employment, upgrading, demotion or transfer, recruitment or recruitment advertising, layoff or termination, rates of pay or other forms of compensation, and selection for training, including without limitation apprenticeship. The Consultant further agrees to insert this provision in all subcontracts hereunder, except subcontracts for standard commercial supplies or raw materials.
30. The Consultant shall keep confidential all information, in whatever form, produced, prepared, observed, or received by the Consultant to the extent that such information is confidential by law or otherwise required by this Agreement.

31. Pursuant to Florida Statutes, information or documents may be open to public inspection and copying. The Authority will have the duty to disclose unless a particular record is confidential by law or otherwise exempt from disclosure pursuant to chapter 119, Florida Statutes.
32. The illegality or invalidity of any provision or portion of this Agreement shall not affect the validity of the remainder of the Agreement and this Agreement shall be construed as if such provision did not exist. The unenforceability of such provision shall not be held to render any other provision or provisions of this Agreement unenforceable.
33. Authority and Tenant agree this Agreement is the result of negotiation between the parties hereto and has been typed/printed by one party for the convenience of both parties, and the parties covenant that this Agreement shall not be construed in favor of or against any of the parties hereto or against the “drafter” hereof.
34. Except as otherwise provided for by law or this Agreement, the rights and remedies of the parties hereto shall not be exclusive and are in addition to any other rights and remedies provided by law or equity, including, without limitation, the recovery of actual damages and the prevailing party’s reasonable attorney’s fees and costs.
35. It is specifically agreed between the parties executing this Agreement that it is not intended by any of the provisions of any part of this Agreement to create in the public or any member thereof a third party beneficiary status hereunder, or to authorize anyone not a party to this Agreement to maintain a suit for personal injuries or property damage, or pursuant to the terms or provisions of this Agreement.
36. The parties hereto represent and warrant that the person executing this Agreement on behalf of each party has full power and authority to enter into this Agreement and that the parties are authorized by law to perform the services set forth herein.
37. This Agreement constitutes the entire agreement of the parties and such is intended as a complete and exclusive statement of the promises, representations, negotiations, discussions, and other agreements that may have been made in connection with the subject matter hereof. Unless an integrated attachment to this Agreement specifically displays a mutual intent to amend a particular part of this Agreement, general conflicts in language between any such attachment and this Agreement shall be construed consistent with the terms of this Agreement. Unless otherwise expressly authorized by the terms of this Agreement, no modification or amendment to this Agreement shall be binding upon the parties unless the same is in writing and signed by the respective parties hereto and the Attorney General.
38. At the end of the term of this Agreement described in Article II – Performance, Paragraph 1, the Consultant will be evaluated, and that evaluation may be used for evaluation of future procurements.

(Signature Page Follows)

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK]

IN WITNESS WHEREOF, the authorized representatives of the Consultant and the Authority have caused their names to be signed hereon on the date first above written.

Signed, Sealed and Delivered
in the presence of:

Witness

Witness

AUTHORITY:
TITUSVILLE-COCOA AIRPORT AUTHORITY

By: _____
Kevin Daugherty, AAE
Director of Airports

Attest: _____
Name: _____
Position: _____
(corporate seal)

Kimberley Davis
Witness

CONSULTANT:
RICONDO & ASSOCIATES, INC.

By: _____

Printed Name: _____ Pete Ricondo, P.E.

Printed Title: _____ Senior Vice President

Ganett Bond
Witness

Attest: [Signature]
(corporate seal)



Attachment A



May 2022

Arthur Dunn Airpark

Master Plan Update Scope of Services

Prepared for:

Titusville-Cocoa Airport Authority

Prepared by:

RICONDO

In association with:

American Infrastructure Development, Inc.

Brown & Phillips, Inc.

Martinez Geospatial, Inc.

The Quotient Group

Ricondo & Associates, Inc. (Ricondo) prepared this document for the stated purposes as expressly set forth herein and for the sole use of Titusville-Cocoa Airport Authority and its intended recipients. The techniques and methodologies used in preparing this document are consistent with industry practices at the time of preparation and this Report should be read in its entirety for an understanding of the analysis, assumptions, and opinions presented. Ricondo & Associates, Inc. is not registered as a municipal advisor under Section 15B of the Securities Exchange Act of 1934 and does not provide financial advisory services within the meaning of such act.

TABLE OF CONTENTS

Scope of Services.....	1
Task 1A. Inventory of Existing Conditions.....	2
1A.1 Background, Airport History, and Aeronautical Role.....	2
1A.2 Inventory of Airport Physical Facilities	2
1A.2.1 Airfield	2
1A.2.2 Fixed Base Operator/General Aviation Facilities	3
1A.2.3 Support Facilities.....	3
1A.2.4 Non-Aeronautical Facilities	3
1A.2.5 Facilities Condition and Age Estimation	3
1A.3 Airspace Data	3
1A.4 Meteorological Conditions	4
1A.5 Land Use.....	4
1A.5.1 On-Airport.....	4
1A.5.2 Off-Airport	4
1A.6 Utilities	4
1A.7 Socioeconomic Data.....	4
1A.8 Environmental Conditions	5
1A.9 Tenant Surveys.....	6
1A.10 Prepare Draft Working Paper.....	6
1A.11 Meetings.....	6
Task 1B. Emerging Trends and Technologies.....	7
1B.1 Emerging Trends and Technologies.....	7
1B.2 Review of General Aviation Industry Trends and Factors Affecting Demand	7
Task 1C. Visioning Session With TCAA Board Members	8
1C.1 Visioning Session	8
Task 1D. Strengths and Opportunities Assessment	9
1D.1 Strengths and Opportunities Assessment	9
1D.2 Meetings.....	9
Task 1E. Stakeholder and Public Involvement.....	10
1E.1 Technical Advisory Panel	10
1E.1.1 Prepare Briefing Materials	10
1E.1.2 Attend and Moderate Technical Advisory Panel Briefings	10
1E.2 Citizens Advisory Panel.....	10

1E.2.1	Prepare Briefing Materials	10
1E.2.2	Attend and Moderate Citizens Advisory Panel Briefings.....	11
1E.3	Titusville-Cocoa Airport Authority Workshops	11
1E.3.1	Prepare Workshop Materials	11
1E.3.2	Conduct Workshops	11
1E.4	Titusville-Cocoa Airport Authority Briefings	11
1E.4.1	Prepare Briefing Materials	11
1E.4.2	Attend Board Meetings and Conduct Briefings	12
1E.5	Public Workshops	12
1E.5.1	Prepare Workshop Materials	12
1E.5.2	Attend Public Workshops	12
Task 2.	Aerial Surveying and Mapping	13
2.1	Project Planning / FAA Airports-GIS Coordination / Field-Survey Consultation	13
2.2	Imagery Acquisition (Flight Mission).....	13
2.3	Aero-Triangulation	14
2.4	Orthophoto Production	14
2.5	Planimetric/Topographic Mapping	14
2.6	Airspace Analysis/Obstruction Survey	14
2.7	Mapping Edit and GIS Formatting/FAA Compliance	14
2.8	Field-Survey Services	15
2.8.1	Establish Geodetic Control / Validate Existing PACs / SACs	15
2.8.2	Runway Surveys	15
2.8.3	NAVAID Surveys	15
Task 3.	Aviation Activity Forecasts.....	17
3.1	Analysis of Historical Activity Patterns	17
3.2	Develop Aviation Activity Forecasts	17
3.3	Identify Critical Aircraft	17
3.4	Deliverables	18
3.4.1	Prepare Draft Working Paper	18
3.4.2	Prepare Final Working Paper	18
3.5	Meetings.....	18
Task 4.	Demand/Capacity Analysis and Airport Requirements	19
4.1	Airfield	19
4.1.1	Airfield Demand/Capacity Assessment	19
4.1.2	Runway Length Requirements	19

4.1.3	Airport Requirements	19
4.2	General Aviation And Fixed Base Operator Facilities	20
4.3	Support Facilities.....	20
4.4	Landside Facilities	20
4.5	Prepare Draft Working Paper.....	20
4.6	Meetings.....	21
Task 5.	Formulate Alternatives	22
5.1	Airfield Alternatives.....	22
5.2	Develop and Evaluate General Aviation Facility Concept Plans	22
5.3	Develop Support Facility Concept Plans.....	22
5.4	Develop Overall Airport Campus Concept Plans	22
5.5	Evaluate Alternatives/Concepts	23
5.6	Develop Rough Order of Magnitude Cost Estimates.....	23
5.7	Prepare Draft Working Paper.....	23
5.8	Meetings.....	23
Task 6.	Environmental Overview	24
6.1	Evaluation of Proposed Development.....	24
6.2	Airport Recycling, Reuse, and Waste Reduction Plan	24
6.3	Prepare Draft Working Paper.....	25
6.4	Meetings.....	25
Task 7.	Capital Improvement Program.....	26
7.1	Validation and Reprogramming of Existing Five-Year CIP	26
7.2	Coordinate Project Sequencing	26
7.3	Develop CIP and Funding Sources.....	26
7.4	Prepare Draft Project Summaries And Exhibits.....	26
7.5	Prepare Draft Working Paper.....	27
7.6	Meetings.....	27
Task 8.	Financial Plan.....	28
8.1	Collect and Review Financial Data	28
8.2	Prepare Financial Plan	28
8.2.1	Pro-Forma Analysis.....	29
8.2.2	Sensitivity Analysis.....	29
8.3	Prepare Draft of Financial Plan	29
8.4	Meetings.....	29
Task 9.	Refine The Preferred Alternative	30

9.1	Alternative Refinement	30
9.2	Meetings.....	30
Task 10.	Airport Layout Plan Set	31
10.1	Title Sheet	31
10.2	Airport Data Sheet.....	31
10.3	Existing Airport Layout Plan	31
10.4	Airport Layout Plan	32
10.5	Airport Airspace Drawing	32
10.6	Inner Portion of the Approach Surface Drawings.....	32
10.7	Departure Surface Drawing	33
10.8	Existing Land Use Drawing.....	33
10.9	Proposed Land Use Drawing.....	33
10.10	Deliverables	33
10.10.1	Draft Airport Layout Plan Set	33
10.10.2	Revise Draft Airport Layout Plan and Respond to Sponsor Comments.....	34
10.10.3	Prepare Checklists According to SOP 2.00.....	34
10.10.4	Revised Draft Airport Layout Plan Set Submittal.....	34
10.10.5	Revise Draft Airport Layout Plan Set and Respond to FAA and FDOT Comments	34
10.10.6	Prepare Final Airport Layout Plan Set	34
10.11	Meetings.....	34
Task 11.	Exhibit 'A' Airport Property Inventory Map.....	35
11.1	Title Work.....	35
11.2	Boundary Survey	35
11.3	Exhibit 'A' Airport Property Inventory Map	36
11.4	Prepare Checklist According to SOP 3.00	36
11.5	Meetings.....	36
Task 12.	Documentation	37
12.1	Develop PowerPoint Template.....	37
12.2	Executive Summary	37
12.2.1	Prepare Executive Summary Brochure.....	37
12.2.2	Prepare Executive Summary Powerpoint.....	37
12.3	Prepare Draft Airport Master Plan Update Report	37
12.4	Respond to Sponsor, FAA, and FDOT Comments	37
12.5	Prepare Final Airport Master Plan Update Report.....	38
Task 13.	Project Administration and Coordination	39

13.1	Grant Services.....	39
13.2	Develop Monthly Status Reports.....	39
13.3	Other Meetings (In Addition To Those Identified Within The Previous Individual Tasks)	39
13.3.1	Kick-Off Meeting	39
13.3.2	TCAA Staff Coordination Calls	39
13.3.3	FAA Coordination Briefings.....	39
13.3.4	FDOT Coordination Briefing	40
	Fee Proposal and Schedule of Meetings.....	40

LIST OF APPENDICES

Appendix A	Ricondo & Associates, Inc. Fee Proposal
Appendix B	American Infrastructure Development, Inc. Fee Proposal
Appendix C	Brown & Phillips, Inc. Fee Proposal
Appendix D	Martinez Geospatial Fee Proposal
Appendix E	The Quotient Group, Inc. Fee Proposal

LIST OF TABLES

Table 1	Ricondo Team Firms and Project Responsibilities	1
Table 2	Arthur Dunn Airpark Master Plan Update Fee Proposal	41
Table 3	Arthur Dunn Airpark Master Plan Update Schedule of Meetings	42

SCOPE OF SERVICES

The Titusville-Cocoa Airport Authority (TCAA) has requested a proposal from Ricondo & Associates, Inc. (Ricondo) to prepare an Airport Master Plan Update (MPU or the Study) for the Arthur Dunn Airpark (X21 or the Airport). The following work program describes the professional services and technical analyses required to successfully complete the MPU for the Airport within the Federal Aviation Administration's (FAA's) and Florida Department of Transportation's (FDOT's) framework and published guidelines for airport master planning.

Ricondo will be supported by a team of subconsultants, providing specialty services and support as listed in **Table 1**. Collectively, the firms are referred to throughout this Scope of Services as the 'Ricondo Team.'

TABLE 1 RICONDO TEAM FIRMS AND PROJECT RESPONSIBILITIES

FIRM	PROPOSED PROJECT RESPONSIBILITIES	DBE
Ricondo & Associates, Inc.	Overall Project Management and Master Plan Development, Client Coordination and Communication, and Quality Assurance/Quality Control	
American Infrastructure Development, Inc.	Engineering Feasibility, Cost Estimating, Utilities Analysis, and Stakeholder and Public Involvement	■
Brown & Phillips, Inc.	Surveying and Establishment of Ground Control and Exhibit "A" Airport Property Inventory Maps	■
The Quotient Group	Stakeholder and Public Involvement Material Development and Graphic Support	■
Martinez Geospatial, Inc.	Aerial Photography and Topographic Mapping	■

NOTE:

DBE – Disadvantaged Business Enterprise

The purpose of the MPU is to comprehensively assess the 20-year needs of the Airport and based on these results, update the Capital Improvement Program (CIP) and Airport Layout Plan's (ALP) set. This project will also include the development of mapping and surveying in compliance with the FAA's prescribed Airports Geographic Information Systems (AGIS) requirements. The MPU will be conducted in accordance with FAA Advisory Circular (AC) 150/5300-13B, *Airport Design*, FAA AC 150/5070-6B, *Airport Master Plans*, and the *FDOT Guidebook for Airport Master Planning*.

The last comprehensive master plan for X21 was initiated in 2002 and completed in 2006. Since the drafting of the 2006 MPU, the TCAA has completed numerous improvement projects, the state of the general aviation (GA) industry has evolved, and the FAA's design and other regulatory guidance have been updated. The MPU is needed to plan for an appropriate mix of land uses, facilities, and infrastructure to support forecast aviation and non-aviation needs.

This Scope of Services includes background information describing the context in which the master planning effort will be accomplished, along with areas of special emphasis. To the extent practical, these efforts will leverage the findings and recommendations from recent and ongoing studies, analyses, project data, and capital improvement initiatives. The tasks and subtasks proposed to prepare the MPU, and related efforts are described in the remainder of this Scope of Services proposal.

Summary of Project Costs and Meetings

- A summary of the fee for each task and the total MPU cost is contained in **Table 2**.
- Details of each firm's respective proposals are included in **Appendices A** through **E**.
- **Table 3** lists the meetings proposed as part of this MPU, along with anticipated duration, number of persons from the Ricondo Team that would participate, and supporting meeting materials to be prepared.

TASK 1A. INVENTORY OF EXISTING CONDITIONS

The Ricondo Team will collect, assemble, and organize existing Airport information needed to develop an inventory of existing conditions from a variety of sources including, but not limited to:

- A site visit and interview with Airport staff conducted as part of this task (see Task 1A.9, for budgeting purposes, it is anticipated the site visit will include up to two (2) members of the Ricondo Team and last up to four (4) hours.
- 2006 Airport Master Plan and other planning studies provided by TCAA
- Aerial mapping completed in Task 2
- As-built/record drawings provided by TCAA for recently completed capital projects
- FAA and FDOT databases

The primary subtasks associated with the Inventory of Existing Conditions are outlined in the following subsections.

1A.1 BACKGROUND, AIRPORT HISTORY, AND AERONAUTICAL ROLE

This subtask includes background information pertinent to the MPU, including a summary of the goals and objectives identified as part of Tasks 1C and 1D. The Airport's history, including a summary of major developments, improvements, and key milestones will be presented as a (graphic) timeline. The timeline will utilize readily available historical photographs provided by TCAA staff. X21's aeronautical role within the federal, state, and local air transportation system will be documented. Specifically, the most recent National Plan of Integrated Airport Systems (NPIAS) will be reviewed, and X21's existing and future role will be discussed.

1A.2 INVENTORY OF AIRPORT PHYSICAL FACILITIES

1A.2.1 AIRFIELD

The goal of this task is to collect and document data and information regarding the physical characteristics and conditions of existing airfield operating systems (defined herein for purposes of this task as the runway, taxiways, taxilanes, and aircraft aprons) at X21. This includes data such as geometric dimensions, runways pavement strengths, navigational aids (NAVAIDs), operational restrictions, deviations from FAA design standards, and other pertinent airfield data. Information related to the condition of various facilities will be obtained from existing published FAA/FDOT data, pavement condition index reports, and from other information provided by TCAA staff.

1A.2.2 FIXED BASE OPERATOR/GENERAL AVIATION FACILITIES

Structures devoted to the use of general aviation activities, including fixed base and corporate aircraft operators, will be identified and evaluated as to their size, use (maintenance hangar, storage hangar, office, etc.), and general condition. Also included in the inventory will be a description of the services provided by each FBO and tenant. General aviation facilities, including vehicular parking areas, aircraft ramp areas, number of tiedowns, and hangars by type (conventional and T-hangar), will be identified and quantified by spatial area or other appropriate measures.

This inventory will be limited to the identification of overall square footage of building/hangar and general aviation apron areas available based on information obtained by the Ricondo Team or provided by TCAA staff, as well as information obtained from previous studies or projects. It is anticipated that any available building condition information collected as part of the annual inventory and inspection process will be provided to the Ricondo Team by TCAA staff.

1A.2.3 SUPPORT FACILITIES

Airport support facilities to be inventoried will include, but not necessarily be limited to fuel farms, the electrical vault, and Airport administration and maintenance facilities. Existing reports, design documents, and other available information will be utilized to inventory the existing airport support facilities. As available, the following information will be summarized and presented in the Inventory of Existing Conditions:

- Facility size and use
- General site conditions
- Airside and/or landside access
- Near term planned improvements anticipated to occur on or before fiscal year 2025

1A.2.4 NON-AERONAUTICAL FACILITIES

This subtask will include an inventory of the non-aeronautical facilities within the boundaries of the Airport. The information related to the type of facility, building area, leasehold boundaries, and function will be inventoried and presented in both narrative and graphic formats. Information will be obtained from TCAA staff, existing leaseholds, and previous planning studies or capital projects. It is anticipated that TCAA staff would provide leasehold boundaries in AutoCAD format. The re-creation of layouts of existing or proposed facilities and infrastructure in AutoCAD is not included in this Scope of Services.

1A.2.5 FACILITIES CONDITION AND AGE ESTIMATION

A facilities condition and age estimation summary will be included in the Inventory of Existing Conditions. The data will be presented in tabular format (and corresponding exhibit) and include the estimated age of on-Airport facilities, existing tenants and corresponding lease term, and overall condition of the facility (e.g., needs light/routine maintenance, requires renovation, reached its useful life and utility). The information will be obtained from the site visit (Task 1A.9) and from other data, input, and previous studies provided by TCAA staff, including any available building condition information collected as part of the annual inventory and inspection process by TCAA or others.

1A.3 AIRSPACE DATA

This subtask will include a discussion on the classification of airspace above X21 and up to five nautical miles from each runway end. Additionally, an overview of the current approach and departure procedures, published noise abatement procedures, and a generalized summary of traffic patterns will be provided.

1A.4 METEOROLOGICAL CONDITIONS

The Ricondo Team will assemble and analyze 10-years of historical wind and weather data obtained from the National Oceanic and Atmospheric Administration (NOAA). Ceiling, visibility, wind speed, and direction will be analyzed to develop a wind rose, assess existing wind coverage, and determine the percentage of observations in visual and instrument meteorological conditions. This information will be obtained for use in the airfield demand/capacity analysis, as well as for the update of the ALP drawing set.

1A.5 LAND USE

1A.5.1 ON-AIRPORT

As part of this subtask, the Ricondo Team will identify and quantify the existing on-Airport land uses by airfield, aviation development, non-aeronautical development, and vacant/undeveloped areas. The information will be obtained from existing TCAA documents and through discussions with Airport staff. Information will be presented tabularly and illustrated on an exhibit. As available and provided electronically by TCAA staff, existing leasehold boundaries will also be depicted. The budget includes the re-creation of up to six (6) leasehold boundaries in AutoCAD from legal descriptions of the boundaries, assumed to be provided by the TCAA.

1A.5.2 OFF-AIRPORT

Existing land use mapping, aerial photography, Comprehensive Plans developed by the City of Titusville and Brevard County, and other documentation pertaining to current and future land use in the vicinity of the Airport (up to one mile from the Airport boundary) will be reviewed. As part of this subtask, the proximity of households and population up to 1.5 miles of each existing runway end will be estimated utilizing available data from the United States Census Bureau.

1A.6 UTILITIES

This subtask will document the locations of significant utilities (water, sewer, and electricity) surrounding the Airport. Significant utilities will include the nearest water connection and size; the nearest sewer and size; and the nearest electric substation and size. Sources referenced will include but are not limited to existing as-built drawings and/or related data, City of Titusville Utility Location Maps, City of Titusville Utility Engineering Department, and the Brevard County Utility Services Department. Florida Power and Light will serve as an additional resource for determining electrical services in the area surrounding the Airport. An exhibit will be developed identifying the Airport utility lines, connection locations, and line sizing for use in planning required utility connections for future facility expansion projects.

The stormwater management systems/facilities will be assessed/inspected to document the functionality, condition, and potential deficiencies. Airport stormwater facilities will be depicted either on the utility exhibit or a separate stormwater exhibit. This task does not include analysis and reporting to the level of stormwater permitting.

1A.7 SOCIOECONOMIC DATA

This subtask will consist of the definition of the Airport's catchment area and the assembly of historical and forecast socioeconomic data (employment, population, personal income, gross regional product) for the region and the nation. This will include data from the U.S. Census Bureau, regional economic development organizations, regional and national socio-economic data sourced through Woods & Poole Economics, Inc., and other relevant sources.

1A.8 ENVIRONMENTAL CONDITIONS

The Ricondo Team will assemble existing datasets and documentation of environmental resources at X21 and the surrounding environment and provide an initial assessment of their influence on airport development. The Ricondo Team will identify the existing conditions of environmental resource categories defined in FAA Order 1050.1F, *Environmental Impacts: Policies and Procedures* Desk Reference that are relevant to future development at X21. Based on known conditions, the following categories would be included in the Inventory:

- Air Quality – general discussion of status of attainment relative to the National Ambient Air Quality Standards for the airport region and considerations for future development.
- Biological Resources – general discussion of biological resources, including federal endangered and threatened species, potentially present on airport property, as identified in previous National Environmental Policy Act (NEPA) documents, the Wildlife Hazard Management Plans, etc.
- Coastal Resources – general discussion of coastal resources and policies relevant to airport development.
- Section 4(f) Resources – general review for the presence of Section 4(f) resources adjacent to airport property, through collection of GIS datasets available online and previous airport NEPA documents.
- Hazardous Materials – general review of previously identified hazardous materials issues at the airport, such as issues documented in previous NEPA documents.
- Historical, Archaeological, Architectural, and Cultural Resources – general review of cultural resources from available airport resources, such as previous NEPA documents.
- Natural Resources and Energy Supply – general discussion of natural resource and energy use, based on information tracked and reported for the airport, if available.
- Noise and Noise-Compatible Land Use – provide a general characterization of aircraft noise based on the most recent airport noise contours.
- Socioeconomics and Environmental Justice: review socioeconomic characteristics of surrounding communities to identify the potential presence of minority or environmental justice populations.
- Water Resources (wetland, floodplains, surface waters, groundwater): collect water resource mapping from the Airport Authority and supplement with mapping available through online resources such as the National Wetland Inventory, Federal Emergency Management Agency. No wetland delineation field surveys are included as part of this scope of services.

Available data from previous studies and information accessible from agencies and other public sources will be relied upon as the basis for this effort. It is assumed that the TCAA will share previous NEPA documents for the airport that will summarize relevant issues, and provide resource mapping, as available. Resources will be mapped on an overview of environmental considerations exhibit for inclusion in the Inventory of Existing Conditions section and use in evaluating master plan alternatives, if applicable. Federal, state, and local permits required for environmental resources will be identified and briefly summarized. Brief discussions of the existing conditions for each resource category will also be provided in the Inventory of Existing Conditions section.

NOTE: The fee estimate is based on preparation of the existing environmental conditions section in the Inventory chapter concurrent with the same tasks for the TIX and COI MPUs. The concurrent approach

enables efficiency because the Ricondo Team would collect and analyze data for all three airports once from each agency concurrently, rather than conducting three separate efforts.

1A.9 TENANT SURVEYS

A tenant interview questionnaire/survey will be prepared and distributed to existing Airport tenants electronically via a web-based survey. The purpose of the survey is to obtain feedback and input on tenants' existing operations and activities, tenant recommended improvements, potential changes in tenants' business models such as aircraft fleet changes, and tenants' recommendations of items to be addressed in the MPU. The survey will be reviewed and approved by TCAA staff prior to distribution. The survey will be available for tenant input for up to thirty days. At the end of the survey response period, the Ricondo Team will compile the responses tabularly and summarize key or recurring themes with up to three PowerPoint slides.

1A.10 PREPARE DRAFT WORKING PAPER

A draft Inventory of Existing Conditions working paper summarizing the findings of each of the preceding tasks will be prepared and provided to Airport staff for their review. The Ricondo Team will prepare exhibits (as applicable) to clarify and summarize the various items addressed in the inventory section. The draft working paper will be delivered to the Airport and other stakeholders (at the Airport staff's request) in Adobe Portable Document Format (PDF).

It is anticipated that Airport staff will review the draft working paper and provide comments to the Ricondo Team. Comments on the draft working paper will be addressed and responded to as appropriate and included in the final master plan report. A comment tracker, used throughout the MPU, will be developed to manage comments and responses. No supplemental draft will be issued.

1A.11 MEETINGS

It is anticipated that one (1) site visit will be conducted as part of the Inventory of Existing Conditions. The site visit will occur on the same day as the project kickoff meeting (Task 13.3.1). The purpose of the site visit is for the Ricondo Team to collect pertinent information, discuss the condition of the various facilities with TCAA staff, and photograph key facilities for inclusion into the working paper. The site visit will be attended by up to two (2) members of the Ricondo Team and is anticipated to last up to four (4) hours.

Exclusions

- Architectural/engineering assessments of facility conditions
- Surveying of leaseholds and utilities
- Aircraft operations and vehicular traffic counts
- Re-creation of existing conditions exhibits or drawings in AutoCAD
- Agency outreach beyond the collection of readily available public data
- Collecting the Environmental Resource Permit (ERP) of each specific stormwater system
- Photographs, estimated capacities, and recommendations of stormwater system components

TASK 1B. EMERGING TRENDS AND TECHNOLOGIES

1B.1 EMERGING TRENDS AND TECHNOLOGIES

This task includes research and review of data related to emerging trends and technology systems that may have changed since completion of the 2005 MPU and those that may continue to change in the future. Representative topics that may influence the GA sector in the Space Coast region and overall industry to be discussed include the following:

- Advanced air mobility (AAM)
- GA fleet demographics (including electric aircraft) and industry trends
- Airspace considerations including NextGen and other technologies (including remote towers)
- Fuel cost and alternative fuel trends
- Airport development and funding trends
- Aerospace manufacturing and maintenance, repair, and overhaul trends

1B.2 REVIEW OF GENERAL AVIATION INDUSTRY TRENDS AND FACTORS AFFECTING DEMAND

This subtask will comprise a review of national general aviation trends based on the FAA Aerospace Forecasts FY 2021-2041, the General Aviation Statistical Databook & Industry Outlook from the General Aviation Manufacturers Association (GAMA), and the general aviation trends in the Central Florida and East Central Florida regions. The data collected under this subtask will help assess local and nationwide short- and long-term trends, including projections of active general aviation aircraft by type. In turn, these projections will be evaluated to assess whether these trends are likely to influence future general aviation aircraft fleet mix projections at the Airport.

This information will be summarized and documented as part of the Aviation Activity Forecasts (Task 3). For budgeting purposes, the fee for the research, data review, and documentation will be part of this task.

Meetings

There are no meetings anticipated as part of this task.

Exclusions

- Online and in-person surveys
- Benchmarking of other airports

NOTE: The research and summary information developed as part of this task will also be used in the Space Coast Regional Airport (TIX) and Merritt Island Airport (COI) MPUs. The fee for this task has been spread evenly among the three MPUs.

TASK 1C. VISIONING SESSION WITH TCAA BOARD MEMBERS

1C.1 VISIONING SESSION

This task includes the Ricondo Team facilitating one (1) visioning session with TCAA board members to develop a long range, forward looking, and unconstrained visualization of each airport's evolution over a long-term period to guide the identification of goals and objectives for each airport and help identify or redefine (if applicable) TCAA's long range strategic framework. This task would also serve to establish key considerations by which alternatives would be developed, evaluated, and refined in subsequent sections of the master plan.

For budgeting purposes, the visioning session is anticipated to last up to three (3) hours and be conducted by up to three (3) members of the Ricondo Team. A PowerPoint presentation will be developed to guide the discussion.

The results of the visioning sessions will be summarized in a PowerPoint presentation that highlights key themes identified by the stakeholders, as well as goals and objectives developed to guide the master planning process. This summary presentation will be provided to TCAA staff for review and comment and presented to the TCAA Board Members as part of Task 1D.

Exclusions

- Visioning sessions with tenants and other stakeholders

NOTE: The visioning session with the TCAA Board Members will also include discussions related to TIX and COI. For budgeting purposes, the fee for this effort has been spread across the three MPUs.

TASK 1D. STRENGTHS AND OPPORTUNITIES ASSESSMENT

1D.1 STRENGTHS AND OPPORTUNITIES ASSESSMENT

This task will leverage information collected as part of Task 1C and develop a strengths and opportunities assessment for the airport that focuses on the Airport's unique strengths and potential opportunities for business expansion or diversification to help guide the strategic development and enhance the overall value of the airport's assets. The Ricondo Team will utilize the results of this analysis to identify key drivers affecting activity levels, types of services and activities accommodated, and availability of developable space and facilities. The Airport's existing role, as well as the potential opportunities for an expanded or evolving role, within the TCAA system, would also be considered in close coordination with the TCAA as part of this task. The previously completed strengths, weaknesses, opportunities, and threat analysis developed as part of the Airport's existing Strategic Business Plan will be reviewed as part of this subtask. The strengths and opportunities assessment will be summarized and documented in a PowerPoint presentation.

1D.2 MEETINGS

This task includes up to two (2) meetings to present the findings and a summary of the strengths and opportunities assessment and visioning session (Task 1C). One meeting will be held with TCAA staff and one meeting with the TCAA Board Members. For budgeting purposes, it is anticipated that each meeting will last up to two (2) hours and be attended by up to two (2) members of the Ricondo Team. The Ricondo Team will prepare and distribute a summary of action items for the meeting with TCAA staff. Meeting minutes for the TCAA Board Member discussion will be prepared by TCAA staff (as part of the regularly scheduled Board Meeting).

Exclusions

- Development of a separate, stand-alone Strategic Plan Summary Report or White Paper
- Benchmarking of other airports or systems of airports

NOTE: This task includes a discussion of the visioning session (Task 1C) and strengths and opportunities assessment for TIX, COI, and X21. For budgeting, purposes the fee for this effort has been spread among the MPUs.

TASK 1E. STAKEHOLDER AND PUBLIC INVOLVEMENT

The purpose of the Stakeholder and Public Involvement Program is to engage TCAA, airport stakeholders, and tenants in the MPU process. The program is designed to be inclusive and create an environment that promotes meaningful dialogue and opportunities to actively participate in the MPU process. The subsequent sections detail the efforts associated with conducting the Stakeholder and Public Involvement Program. The presentation materials created and/or collected as part of this task will be included in an appendix of MPU.

1E.1 TECHNICAL ADVISORY PANEL

A Technical Advisory Panel (TAP), consisting of up to twenty individuals, will be formed to provide input and insight on existing and planned facilities, infrastructure, and aircraft operations and other activity information. The TAP will be tasked with reviewing and analyzing MPU's technical analyses, interacting with the planning team members during the meetings, and making recommendations to the planning team. Panel members could include but are not limited to: TCAA board members and staff, major airport tenants (FBOs, flight school, hangar tenants, etc.), FAA, FDOT, and representatives from nearby counties and municipalities. As suggested by the title, the TAP is advisory in nature and does not have official decision-making power.

1E.1.1 PREPARE BRIEFING MATERIALS

This subtask includes the preparation of briefing materials for three (3) TAP briefings. Briefing materials prepared for the TAP will include the development of discussion materials highlighting key takeaways from the draft MPU material, the methodologies involved in the development of the material, and MPU status updates. The Ricondo Team will develop briefing materials in the form of PowerPoint presentations. This subtask also includes the preparation and distribution of meeting minutes.

1E.1.2 ATTEND AND MODERATE TECHNICAL ADVISORY PANEL BRIEFINGS

The TAP briefings will be attended by up to two (2) members of the Ricondo Team. It is anticipated these meetings will take place in the TCAA conference room and last up to two (2) hours. The Ricondo Team will present briefing material discussed in the previous subsection, present preliminary MPU material, and obtain consensus on key decisions. An email invitation will be distributed to each committee member at least two weeks prior to each meeting.

1E.2 CITIZENS ADVISORY PANEL

A Citizens Advisory Panel (CAP) will be developed to serve as a sounding board and information exchange group for the general public and other stakeholders. The CAP will review the planning team's plans and proposals, interact with the planning team members during meetings, and provides recommendations to the planning team, and TCAA staff. Panel members, to be identified by the TCAA, could include, but are not limited to citizens, representatives from nearby homeowners' associations, public officials, and business leaders (economic development groups, chambers of commerce, etc.). The CAP will weigh the recommendations against community goals, values, and needs. The CAP is advisory in nature would have no decision-making power of their own.

1E.2.1 PREPARE BRIEFING MATERIALS

This subtask includes the preparation of briefing materials for the three (3) CAP briefings. Briefing material prepared for the CAP will include discussion materials highlighting key takeaways from the draft MPU material, the methodologies involved in the development of the material, and MPU status updates. The Ricondo Team will

develop briefing materials in the form of PowerPoint presentations. This subtask also includes the preparation and distribution of meeting minutes.

1E.2.2 ATTEND AND MODERATE CITIZENS ADVISORY PANEL BRIEFINGS

The CAP briefings will be attended by up to two (2) members of the Ricondo Team. It is anticipated these meetings will take place in the TCAA conference room and last up to two (2) hours. The Ricondo team will present briefing material discussed in the previous subsection, present preliminary MPU material, and obtain consensus on key decisions. An email invitation will be distributed to each committee member at least two weeks prior to each meeting.

NOTE: For budgeting purposes, it is anticipated that the TAP and CAP meetings will occur on the same day.

1E.3 TITUSVILLE-COCOA AIRPORT AUTHORITY WORKSHOPS

The TCAA's strategic initiatives and vision for the Airport will be used to guide and inform the MPU process. A critical element of the planning process is to obtain feedback and input from the TCAA to ensure the Recommended Airport Improvement Plan aligns with TCAA's strategic initiatives and vision.

1E.3.1 PREPARE WORKSHOP MATERIALS

This subtask will include two (2) workshops that provide an opportunity for the TCAA to review and comment on the MPU's technical analysis, alternatives, Recommended Airport Improvement Plan, and CIP. The Ricondo Team will develop workshop materials that will guide discussion and feedback. Workshop materials may be in the form of display boards and/or PowerPoint presentations. This subtask also includes the preparation and distribution of meeting minutes.

1E.3.2 CONDUCT WORKSHOPS

Two (2) workshops are budgeted to facilitate coordination, consistency, obtain direction, and make key decisions prior to the development of MPU draft chapters. For budgeting purposes, it has been assumed that up to three (3) members of the Ricondo Team would participate in each of the two (2) workshops. Each workshop is anticipated to last approximately two (2) hours.

NOTE: For budgeting purposes, it is anticipated that the TCAA workshops will be held on the same day as the workshops for the TIX and X21 master plan. The fee for subtask 1E.3.2 will be spread evenly among the three MPUs.

1E.4 TITUSVILLE-COCOA AIRPORT AUTHORITY BRIEFINGS

1E.4.1 PREPARE BRIEFING MATERIALS

The board members of the TCAA will be briefed on the progress of the MPU during key milestones, such as near the end of the development of the Aviation Activity Forecasts (Task 3A) and the midpoint of the Financial Plan (Task 8). Briefing materials prepared for the TCAA briefings will include the development of discussion materials highlighting key takeaways from the draft MPU material, the methodologies involved in the development of the draft and preliminary material, and MPU status updates. The Ricondo Team will develop briefing materials in the form of PowerPoint presentations.

1E.4.2 ATTEND BOARD MEETINGS AND CONDUCT BRIEFINGS

This subtask will include the Ricondo Team's attendance at up to two (2) regularly scheduled board meetings to present the briefing materials discussed in the previous subsection, present preliminary and draft MPU materials, and obtain feedback and comments from the TCAA. The TCAA Board Meetings are open to the public and will provide an opportunity for the TCAA and the Ricondo Team to receive public comments and feedback on the MPU.

For budgeting purposes, it has been assumed that up to two (2) members of the Ricondo Team would participate in each of the two (2) briefings. Each board meeting is anticipated to last approximately two (2) hours.

NOTE: For budgeting purposes, it is anticipated that the TCAA briefings will be held on the same day as the briefings for the TIX and X21 master plan. The fee for subtask 1E.4.2 will be spread evenly among the three MPUs.

1E.5 PUBLIC WORKSHOPS

1E.5.1 PREPARE WORKSHOP MATERIALS

Two (2) public workshops, in an open house format, will be conducted to brief residents and interested stakeholders about the project and to receive public comments. The workshops are tentatively scheduled to occur following the completion of the Demand/Capacity Analysis and Facility Requirements and prior to the Final MPU submittal. The Ricondo Team will prepare briefing materials for the public workshops and will have appropriate personnel in attendance to respond to questions and comments from the public. The Ricondo Team will prepare the meeting notice for mailing to the public and the meeting advertisement for publication. The Ricondo Team will prepare and collect comment forms and will review and summarize the comments.

1E.5.2 ATTEND PUBLIC WORKSHOPS

Up to three (3) members of the Ricondo Team will attend each of these meetings and participate in the role desired and requested by TCAA staff. For budgeting purposes, it is assumed that each workshop will last up to three (3) hours. This task will also include for each workshop a meeting summary including copies of sign-in sheets, comment cards collected, and a summary of action items/consensus items.

Exclusions

- Development of videos and multimedia presentations
- Individual meetings and agency outreach

TASK 2. AERIAL SURVEYING AND MAPPING

The Ricondo Team will provide spatial data collection, photogrammetry, and mapping services in support of an ALP. This proposal also includes tasks required to comply with FAA Airports survey program standards. All survey and photogrammetry work will be accomplished in accordance with the following ACs:

- AC 150/5300-16B: General Guidance and Specifications for Aeronautical Surveys: Establishment of Geodetic Control and Submission to the National Geodetic Survey
- AC 150/5300-17C: Standards for Using Remote Sensing Technologies in Airport Surveys
- AC 150/5300-18B: General Guidance and Specifications for Submission of Aeronautical Surveys to NGS: Field Data Collection and Geographic Information System (GIS) Standards

The objective for this task is to collect and submit safety critical data for the Airport in a format that is recognized by FAA. Base-mapping (planimetric & topographic data) collected in support of the ALP update will be formatted and submitted to the Airport Data and Information Portal (ADIP). This task will also include an Airport Airspace Analysis for the existing runways, a NAVAID inventory and survey, a runway ends/thresholds and profiles survey, and the collection (through remote sensing) of planimetric & topographic data. The Ricondo Team will fulfill the data collection, formatting, delivery, and process requirements of the FAA AGIS program.

In general, the Ricondo Team's approach to fulfilling the GIS requirements will consist in completing the tasks outlined in Table 2-1 (Survey Requirements Matrix) of FAA AC 150/5300-18B, Column "Airport Layout Plan." The Ricondo Team will be responsible for coordinating and submitting AGIS deliverables to FAA.

2.1 PROJECT PLANNING / FAA AIRPORTS-GIS COORDINATION / FIELD-SURVEY CONSULTATION

This task includes the development, submission, and approval of the "Statement of Work" for the project through the FAA Airports District Office (ADO) and FAA AGIS staff. The Ricondo Team will also develop, submit, and obtain the approval of the "Imagery/Remote Sensing Plan" and the "Survey & Quality Control Plan" required by the FAA.

2.2 IMAGERY ACQUISITION (FLIGHT MISSION)

New color aerial imagery will be captured utilizing a digital photogrammetric camera for all areas defined in the Project Area Definition section of the proposal found within Appendix D. The aerial imagery acquisition flight mission will be executed in accordance with all guidelines and specifications within FAA AC 150/5300-17C. The aerial imagery acquisition flight mission will consist of one "block" of imagery, collected to the following specifications:

- Imagery Resolution: 10 cm
- Imagery Purpose/Use: This imagery will be utilized for all photogrammetric data extraction, including airfield planimetric/topographic mapping and AGIS/Part 77/TSS Airport Airspace Analysis. 0.50' GSD orthophotos will be generated from this imagery.

Upon completion of the flight mission, the imagery will be reviewed through in-house quality assurance procedures for photogrammetric acceptability and compliance with AC 150/5300-17C requirements.

NOTE: The fee estimate for imagery acquisition assumes that TIX, COI, and X21 will be flown on same flight mission.

2.3 AERO-TRIANGULATION

The digital aerial imagery will be imported onto a digital photogrammetric workstation where it will be oriented with field-surveyed ground control. This procedure will establish both horizontal and vertical control for orienting individual photogrammetric models.

2.4 ORTHOPHOTO PRODUCTION

Digital orthophotos will be produced to meet the project's needs and to comply with the requirements of the FAA AGIS program and AC 150/5300-17C. One set of ortho imagery will be produced covering Area B illustrated in Appendix D and meeting a Ground Sampling Distance (GSD) resolution of 0.50 feet.

2.5 PLANIMETRIC/TOPOGRAPHIC MAPPING

Utilizing the aero-triangulated digital imagery, photographic stereo pairs will be oriented and compiled on digital photogrammetric workstations within Area A illustrated in Appendix D. The mapping data will be compiled meeting the following specifications:

- Planimetric data scale – 1 inch = 200 feet
- Topographic data scale – 2-foot contour interval

2.6 AIRSPACE ANALYSIS/OBSTRUCTION SURVEY

An airport airspace analysis and obstruction survey will be completed for both runways at X21. Obstacle data collection (and subsequent submission) will be accomplished in accordance with relevant sections of AC 150/5300-18B, Section 2.7.1 and the FAA's Airport Airspace Analysis Checklist. This effort includes a Part 77 surface and obstacle clearance surface (OCS) survey that will be performed by analyzing the digital 3D stereo imagery. Natural and manmade objects penetrating the surfaces including, but not limited to buildings, utility poles, antennas, towers, and prominent objects will be collected (small objects, such as mailboxes, posts, and utility boxes will be ignored) and identified. For vegetation, singular trees/shrubs will be collected to the extent possible/feasible. In large areas of dense vegetation, a bounding polygon will be drawn to show the extents of the dense area. A 100-foot grid will be applied to the defined limit, and the highest vegetation point within each grid-sector will be collected.

2.7 MAPPING EDIT AND GIS FORMATTING/FAA COMPLIANCE

In addition to generating mapping data in AutoCAD format, all collected data will be edited and formatted in the appropriate FAA AGIS format. In terms of GIS attributes, the Ricondo Team will be responsible for populating all geospatial-related and/or critical attributes required for upload. The final AGIS file created by the Ricondo Team will include both Safety-Critical and Non-Safety-Critical data including:

- Safety-Critical
 - Airport Airspace Analysis Data (Obstructions)
 - Runway Survey Data

- NAVAID Survey Data
- Non-Safety-Critical
 - Planimetric Data
 - Topographic Data

Final GIS data will meet the following specifications:

- GIS Data Model - FAA Airports-GIS (AC 150/5300-18B, Chapter 5)
- GIS Delivery Format - ArcGIS Shapefile

2.8 FIELD-SURVEY SERVICES

2.8.1 ESTABLISH GEODETIC CONTROL / VALIDATE EXISTING PACS / SACS

There is currently one Primary Airport Control Station (PACS) monument and two Secondary Airport Control Stations (SACS) monuments published in the National Geodetic Survey (NGS) database for the Airport. Surveyors will validate/utilize these monuments to serve as the project tie to the National Spatial Reference System (NSRS). If the existing PACS/SACS monuments are determined to be damaged or the validation is unsuccessful, the surveyors will establish temporary geodetic control points, as required. Geodetic data will be tied to the NSRS using the latest published adjustment (2011). In addition to the PACS and SACS, this subtask will include the surveying of up to five (5) additional survey monuments. The approximate location of the survey monuments will be provided by TCAA staff.

Photo-identifiable features will be selected and surveyed for use as imagery ground control. Imagery Control will be surveyed (properly tied to NSRS) and documented in accordance with AC 150/5300-17C and FAA Airports-GIS requirements. Ground control data and documentation will be submitted to FAA Airports-GIS along with the Aerial Photography Acquisition Report. It is anticipated that approximately 24 imagery control points will be required, along with 5 independent Online Positioning User System (OPUS) checkpoints.

2.8.2 RUNWAY SURVEYS

Survey tasks will include a survey of runway endpoints, displaced thresholds, and runway profiles. For each runway endpoint and displaced threshold, a monument will be set (or recovered), surveyed, and documented in accordance with AC 150/5300-18B. Runway centerline profiles will be surveyed at a 25-foot interval utilizing mobile RTK methodology. Multiple passes in opposite directions will be accomplished of the entire runway length for quality assurance purposes. Final profile data will be reduced to 50-foot stations. Runway survey data will be utilized for the Airport Airspace Analysis/Obstruction Surveys task. Runway survey data will be properly formatted by the Ricondo Team and reported in the FAA Airports GIS deliverable

2.8.3 NAVAID SURVEYS

Surveyors will accomplish field-survey of NAVAIDs associated with X21. Each NAVAID will be surveyed and documented in accordance with AC 150/5300-18B. NAVAID survey data will be formatted by the Ricondo Team and reported in the FAA Airports-GIS deliverable.

Exclusions

- Development of 3D models

- Acquisition of light detection or ranging (LIDAR) data

TASK 3. AVIATION ACTIVITY FORECASTS

The purpose of this task is to develop aviation activity forecasts for the Airport, taking into consideration socioeconomic factors, local and national general aviation trends, and demand characteristics at the Airport. New activity forecasts will be derived based on recent historical demand patterns, trends experienced at the Airport, and the potential range of changes in aviation activity at the Airport that could occur over the 20-year planning horizon.

3.1 ANALYSIS OF HISTORICAL ACTIVITY PATTERNS

This subtask will include the collection and analysis of historical activity at the Airport. Data on historical aircraft operations and based aircraft for a ten-year period commencing in fiscal year (FY) 2011 and ending in FY 2021 will be assembled from various sources, including airport activity records, the Airport's Virtower system, and FAA databases. This data will be used to measure and analyze historical activity patterns. The analysis will serve to identify the drivers of historical activity and determine which of those drivers may be indicative of future activity at the Airport. Virtual meeting discussions with the Airport's FBO will also be conducted to identify any additional emerging trends.

3.2 DEVELOP AVIATION ACTIVITY FORECASTS

The forecasts will be prepared using FAA-accepted methodologies (econometric modeling, market share, and trend analyses) for the period from FY 2023 through FY 2043. These forecasts will be compared against other forecasts recently prepared for X21, such as the FAA's 2021 Terminal Area Forecasts (TAF) published in March 2022 (or the most current TAF available at the time the forecasts are prepared) and the Florida Aviation System 2035 Update. Activity projections will be provided for each year of the projection period and will include individual projections of the following:

- Annual General Aviation Operations (Local vs. Itinerant)
- Annual Military Operations (Local vs. Itinerant)
- Annual Instrument Operations
- Total Annual Aircraft Operations
- Annual Operational Fleet Mix by Aircraft Type (Piston, Turboprop, Others)
- Annual Operational Fleet Mix by Aircraft Approach Category (AAC) and Airplane Design Group (ADG)
- Based Aircraft Fleet Mix (Piston, Turboprop, Others)

As part of this task, the Ricondo Team will also prepare supplemental documentation comparing the FAA TAF and the X21 MPU forecasts.

3.3 IDENTIFY CRITICAL AIRCRAFT

This task includes the background research and data collection necessary to identify the "critical aircraft" or "critical design aircraft" for the base year and throughout the planning period. The critical aircraft will be used to evaluate the FAA design criteria detailed in Task 4, develop subsequent airfield alternatives, and, as necessary, reevaluate existing operational restrictions. Information will be collected from the Airport's Virtower software and the FAA's Traffic Flow Management System Counts (TFMSC) database.

The critical aircraft will be determined by quantifying the most demanding aircraft with 500 or more annual itinerant operations that is currently using the Airport or could reasonably be expected to use the Airport during the planning period. The identification of the critical aircraft will provide justification for the identification of the Airport Reference Code (ARC), which is necessary for analysis in subsequent sections of MPU and for inclusion on the ALP

3.4 DELIVERABLES

3.4.1 PREPARE DRAFT WORKING PAPER

A draft Aviation Activity Forecasts working paper summarizing the findings of each of the preceding tasks will be prepared and provided to Airport staff for their review. The Ricondo Team will prepare exhibits (as applicable) to clarify and summarize the various items addressed in the forecasts section. The draft working paper will be delivered to the Airport and other stakeholders (at the Airport staff's request) in Adobe PDF.

It is anticipated that the Airport staff will review the draft working paper and provide comments to the Ricondo Team.

3.4.2 PREPARE FINAL WORKING PAPER

Upon receipt of comments from TCAA staff on the draft working paper, a final working paper will be prepared and submitted to the FAA Orlando ADO and FDOT for review and comment. FAA and FDOT comments will be addressed, the document will be revised, and the final version will be included in the MPU.

The final working paper will be delivered electronically to the Airport staff and other stakeholders electronically in Adobe PDF. Hard copies of the final working paper will be made available to the FAA and FDOT at their request.

3.5 MEETINGS

For budgeting purposes, it is anticipated that the Ricondo Team will participate in up to four (4) teleconferences as part of this subtask: two (2) with FBOs operating at the Airport, one (1) with TCAA staff, and one (1) with FAA/FDOT to discuss the results of the forecasts. Each of the four teleconferences are anticipated to last approximately two (2) hours and be attended by up to two (2) members of the Ricondo Team.

This subtask includes the preparation of an Executive Summary PowerPoint presentation outlining the methodologies and assumptions used to develop the forecasts, as well as a summary of the preferred forecast. A summary of action items will be developed following the meetings with TCAA and FAA/FDOT.

Exclusions

- Collection of aircraft operations counts
- Creation of a based aircraft list

TASK 4. DEMAND/CAPACITY ANALYSIS AND AIRPORT REQUIREMENTS

The following tasks will be completed in the development of the Demand/Capacity Analysis and Airport Requirements Section of the MPU.

4.1 AIRFIELD

4.1.1 AIRFIELD DEMAND/CAPACITY ASSESSMENT

Using the FAA's methodology for assessing airfield capacity and delay, as described in AC 150/5060-5, *Airport Capacity and Delay*, and other tools such as Airport Cooperative Research Program (ACRP) 79, *Evaluating Airfield Capacity*, an assessment of the current and future level of airfield capacity will be developed. This analysis will consider the airfield configuration, weather data and runway operating configurations, aircraft fleet mix, and current and 20-year forecast operations. The result of the assessment will be expressed in terms of the hourly and annual service volume of the airfield.

4.1.2 RUNWAY LENGTH REQUIREMENTS

Based on the projected aircraft fleet mix anticipated to utilize the Airport over the planning period, an analysis of runway length will be performed for up to four aircraft likely to utilize the Airport. This analysis will consider several operational variables, including ratios of maximum takeoff weight, maximum landing weight, runway conditions, and atmospheric conditions. Required weather data that is necessary for runway lengths will be obtained for X21 from NOAA as mentioned previously in the inventory section. The results of the runway length calculations and requirements, as well as the required dimensional standards, will be incorporated into the Airport requirements portion of the MPU. This analysis will be conducted using the standards and guidelines contained in FAA AC 150/5325-4B, *Runway Length Requirements for Airport Design*.

4.1.3 AIRPORT REQUIREMENTS

Using the results of the demand/capacity analysis, as well as relevant information from other tasks and airfield planning criteria, a preliminary listing of airfield requirements necessary to meet projected levels of demand for the 5-, 10-, and 20-year planning horizons will be developed. These airfield requirements will be based upon both accepted airport planning criteria and the forecast of aviation activity for the Airport, as well as the knowledge and expertise of the Ricondo Team, TCAA staff, and TAP members. Airfield characteristics to be assessed include:

- Runway and taxiway geometry
- Necessity for addition/removal/modifications of taxiway connectors
- Pavement condition (based on existing PCI reports)
- Airfield service roads
- Airfield signage
- Lighting and markings
- NAVAIDs

Airfield needs will be identified in terms of linear feet, width, strength, separation, and clearance. The airfield pavement rehabilitation needs based on the pavement condition index (PCI) developed in the FDOT's *Statewide Airfield Pavement Management Program* will be discussed as part of the airfield requirements. Where appropriate, the airfield facilities will be linked to activity demand thresholds or triggers as a means of determining the point at which demand is sufficient to warrant the improvement.

4.2 GENERAL AVIATION AND FIXED BASE OPERATOR FACILITIES

An evaluation of current and future demand and capacity for general aviation facilities will be completed. The analysis will consider facility requirements for:

- Aircraft ramp and parking areas
- T-hangars/Corporate hangars/Box hangars
- Conventional hangar facilities
- FBO/GA terminals
- Aircraft maintenance and repair hangars
- Vehicle parking areas
- Fuel storage facilities

General aviation facility requirements will be identified as needed to meet projected levels of demand expressed in the forecast and based on the demand/capacity analysis for GA facilities. Facility requirements will be expressed in terms of gross area, linear feet, square feet, square yards, or other basic units to determine excess or deficient capacity. This assessment will quantify future development items needed to maintain an adequate capacity, function, and operational flexibility at the Airport. The analysis of general aviation facility requirements will also rely on feedback from the tenants to be obtained during the TAP meetings.

4.3 SUPPORT FACILITIES

Using pertinent FAA regulations, ACs, and information gained from discussions with TCAA staff and users, the Ricondo Team will determine the capacity of existing and establish future needs for the Airport administration and maintenance facilities and electrical vault. Security enhancements identified by TCAA staff and/or members of the TAP will also be discussed and presented in this task.

4.4 LANDSIDE FACILITIES

This task will focus on the on-airport road network and adjacent areas serving the tenant areas. On-airport roadway requirements will be based on future demand, and discussed in terms of number of traffic lanes, access points, and intersection congestion. Roadway requirements will be developed for immediate airport access roadways providing ingress/egress to the Airport facilities.

4.5 PREPARE DRAFT WORKING PAPER

A draft Demand/Capacity Analysis and Airport Requirements working paper summarizing the findings of each of the preceding tasks will be prepared and provided to Airport staff for their review. The Ricondo Team will prepare

exhibits as necessary to clarify and summarize the various items addressed in the requirements section. The draft working paper will be delivered to the Airport and other stakeholders (at the Airport staff's request) in Adobe PDF.

It is anticipated that Airport staff will review the draft working paper and provide comments to the Ricondo Team. Comments on the draft working paper will be addressed and responded to as appropriate and included in the final master plan report. A comment tracker, used throughout the MPU, will be developed to manage comments and responses. No supplemental draft will be issued.

4.6 MEETINGS

For budgeting purposes, it has been assumed that the Ricondo Team would participate in one (1) teleconference with TCAA staff during the duration of this task. The meeting is anticipated to last approximately two (2) hours and be attended by up to two (2) members of the Ricondo Team. This subtask includes the preparation of the PowerPoint presentation to support the meeting and the preparation and distribution of a summary of action items.

Exclusions

- Airfield and airspace simulations
- Landside simulations

TASK 5. FORMULATE ALTERNATIVES

The Ricondo Team will prepare and evaluate alternative airport development concepts to accommodate the range of requirements needed to satisfy forecast demand for the short-, intermediate-, and long-term planning periods. Subtasks to be completed as part of Task 5 are as follows:

5.1 AIRFIELD ALTERNATIVES

Airfield alternatives will be developed to accommodate future airfield capacity needs and address any substandard FAA design conditions discussed in Task 4. Based on the areas of taxiway geometry noncompliance identified in Task 4, the Ricondo Team will develop alternatives for taxiway modifications necessary to comply with the FAA's runway incursion mitigation program and enhancement of situational awareness techniques and standards included in FAA AC 150/5300-13B (e.g., provide indirect taxiway access from apron areas, implement the three-node concept, avoid wide expanses of pavement). Up to three (3) airfield alternative concepts will be developed for discussion with TCAA staff and stakeholders.

5.2 DEVELOP AND EVALUATE GENERAL AVIATION FACILITY CONCEPT PLANS

Based on the GA area facility requirements determined in Task 4, preliminary GA facility concept plans will be formulated. This subtask will include the creation of up to five (5) potential GA facility layouts which will be evaluated based on their efficiency in meeting identified facility requirements, ability to group tenants in the same general areas, ability to accommodate future aircraft types, ease of implementation, optimized land use, and environmental considerations.

5.3 DEVELOP SUPPORT FACILITY CONCEPT PLANS

Based on the support facility requirements determined in Task 4, preliminary support facility concept plans will be developed. The concept plans will be assessed based on the ability to serve forecast demand, expandability, and operational considerations. Up to three (3) support facility alternatives will be prepared as part of this task. The ongoing plans for new ATCT will be incorporated into the support facility concept plans.

5.4 DEVELOP OVERALL AIRPORT CAMPUS CONCEPT PLANS

Using the information collected during the Visioning Session and the Strengths and Opportunities Assessment, concepts plans for optimizing land use and development opportunities at the Airport would be created. Up to three (3) preliminary concept plans will be developed. These airport campus concepts plans will also include options for landside facility improvements. Landside facility improvement concepts will illustrate areas that could be improved to accommodate additional vehicular parking and/or increase vehicular circulation efficiency within the existing and proposed airport footprint. The concept plans will be assessed based on their ability to serve the projected demand, expandability, and operational and circulation considerations.

5.5 EVALUATE ALTERNATIVES/CONCEPTS

The Ricondo Team will conduct an evaluation of the development alternatives and concepts based on criteria developed through a dialogue between the Airport staff and the members of the TAP. These criteria could include, but are not limited to the following:

- ability of the alternative/concept to provide required capacity and/or capability
- potential environmental impacts
- land use optimization
- qualitative assessment of relative costs (using a comparative methodology between each set of alternatives)
- constructability/ease of implementation

Criteria may be weighted to reflect importance in the evaluation process. An evaluation matrix will be prepared to compare the various alternatives in terms of the evaluation criteria.

5.6 DEVELOP ROUGH ORDER OF MAGNITUDE COST ESTIMATES

Rough order of magnitude (ROM) cost estimates will be prepared for the preferred alternative/concept plan. The ROM costs will be used to assist in the phased implementation of the Recommended Airport Improvement Plan, and the evaluation of the ultimate scenario's feasibility. The ROM costs will be developed on a planning/conceptual nature and include design, engineering, administrative, and construction costs. For budgeting purposes, it is assumed this subtask will include the development of ROM cost estimates for up to 25 discrete projects that collectively comprise the Recommended Airport Improvement Plan.

5.7 PREPARE DRAFT WORKING PAPER

A draft Alternatives Analysis working paper summarizing the findings of each of the preceding tasks will be prepared and provided to Airport staff for their review. The Ricondo Team will prepare exhibits as necessary to clarify and summarize the various items addressed in the alternatives section. The draft working paper will be delivered to the Airport and other stakeholders (at the Airport staff's request) in Adobe PDF.

It is anticipated that Airport staff will review the draft working paper and provide comments to the Ricondo Team. Comments on the draft working paper will be addressed and responded to as appropriate and included in the final master plan report. A comment tracker, used throughout the MPU, will be developed to manage comments and responses. No supplemental draft will be issued.

5.8 MEETINGS

For budgeting purposes, it has been assumed that the Ricondo Team would participate in up to two (2) on-site meetings with TCAA staff during the duration of this task. The meeting is anticipated to last approximately two (2) hours and be attended by two (2) members of the Ricondo Team. This subtask also includes the preparation and distribution of a summary of action items.

Exclusions

- 3-D renderings or visual animations
- Airfield simulations

TASK 6. ENVIRONMENTAL OVERVIEW

6.1 EVALUATION OF PROPOSED DEVELOPMENT

Prior to the implementation of Recommended Airport Improvement Plan projects, the potential environmental effects of each project must be reviewed in accordance with the National Environmental Policy Act (NEPA). The Environmental Overview, therefore, provides a summary of environmental review considerations related to the set of Recommended Airport Improvement Plan projects identified in the MPU to support the development of an environmental processing strategy for master plan projects. The environmental overview will include:

- An overview of NEPA processing
- Review of the Recommended Airport Improvement Plan projects for potential eligibility for categorical exclusion under NEPA
- Review of environmental considerations for the Recommended Airport Improvement Plan projects based on environmental resources identified in the environmental inventory (Task 1A.7) (e.g., biological resources, Section 4(f) resources, hazardous materials, cultural resources, land use, natural resources and energy supply, noise and compatible land use, and water resources)
- Discussion of NEPA processing strategy and general discussion of applicable environmental permits

The Environmental Overview will not include detailed analyses of environmental impacts (such as preparation of categorical exclusion documentation or environmental assessments for specific projects) or assess whether the impacts would be considered significant under NEPA. Rather, it provides a guide to support future environmental review of MPU projects.

This task will culminate with the development of an Environmental Overview working paper that will be submitted to TCAA staff for review and comments.

6.2 AIRPORT RECYCLING, REUSE, AND WASTE REDUCTION PLAN

The Ricondo Team will prepare an Airport Recycling, Reuse, and Waste Reduction Plan, to be included as an appendix to the MPU.

In support of defining existing conditions, the Ricondo Team would coordinate a conference call with TCAA airport staff to define existing waste management conditions. The existing conditions discussion will document existing waste management practices, that would include, as available: types of waste generated at TCAA controlled facilities, waste infrastructure, waste collection practices and logistics, TCAA waste collection responsibilities, waste management contracts, recycling and landfill costs, and recycling feasibility. The Ricondo Team will prepare a data collection list and share it with TCAA staff in advance of the conference call.

This appendix will include a more detailed discussion of the waste baselining, goal statement development, and initiatives identification elements specific to the topic of waste, to meet FAA guidance for Airport Recycling, Reuse, and Waste Reduction Plans.¹

¹ US Department of Transportation, Federal Aviation Administration, memorandum to Regional Airport Division Managers, "ACTION: Guidance on Airport Recycling, Reuse, and Waste Reduction Plans," September 30, 2014.

This task will focus on the recycling, reuse, and reduction of waste that can be legally disposed of in a landfill or equivalent state-permitted facility, including municipal solid waste (everyday waste items), construction and demolition (C&D) debris, and compostable waste (food and green waste). Other types of waste, such as hazardous waste, universal waste, industrial waste, and deplaned international waste are disposed of and recycled in accordance with federal, state, and local laws, as such, they are **not** subject to FAA's airport recycling, reuse, and waste reduction plan guidance nor are they included in this scope of services.

NOTE: The fee estimate is based on concurrent waste planning for the TIX and COI MPUs, and the assumption that the TCAA manages limited facilities (non-passenger facilities). The TCAA-managed facilities do not generate significant municipal solid waste streams, so a high-level review will be completed for all three airports simultaneously.

6.3 PREPARE DRAFT WORKING PAPER

A draft Environmental Overview working paper summarizing the findings of each of the preceding tasks will be prepared and provided to Airport staff for their review. The Ricondo Team will prepare exhibits (as applicable) to clarify and summarize the various items addressed in the environmental section along with an Appendix containing the Airport Recycling, Reuse, and Waste Reduction Plan. The draft working paper will be delivered to the Airport and other stakeholders (at the Airport staff's request) in Adobe PDF.

It is anticipated that Airport staff will review the draft working paper and provide comments to the Ricondo Team. Comments on the draft working paper will be addressed and responded to as appropriate and included in the final master plan report. A comment tracker, used throughout the MPU, will be developed to manage comments and responses. No supplemental draft will be issued.

6.4 MEETINGS

For budgeting purposes, it has been assumed that the Ricondo Team would participate in one (1) teleconference with TCAA staff during the duration of this task. The meeting is anticipated to last approximately two (2) hours and be attended by up to two (2) members of the Ricondo Team. This subtask includes the preparation of the PowerPoint presentation to support the meeting and the preparation and distribution of a summary of action items.

Exclusions

- Additional presentations, workshops, etc., to further vet or gain TCAA approval of draft goal statements and initiatives beyond two rounds identified in this scope.
- Sustainability Management Plan

TASK 7. CAPITAL IMPROVEMENT PROGRAM

The Recommended Airport Improvement Plan will be organized into distinct projects and phased over the over the twenty-year planning horizon. The CIP will be coordinated with TCAA staff and the existing CIP to include both currently programmed and MPU related capital improvements for the Airport.

The development schedule will be based on the improvements needed to satisfy demand at the short-, intermediate-, and long-term activity levels and timeframes. Individual development projects will be phased to allow improvements to be designed and constructed and to account for FAA/FDOT grant cycles. The phasing process will be an iterative process with the financial plan to ensure that the CIP is both implementable and economically feasible.

7.1 VALIDATION AND REPROGRAMMING OF EXISTING FIVE-YEAR CIP

The existing CIP was originally defined as part of the MPU completed in 2006. As a part of this task, the Ricondo Team will review the Airports existing five-year CIP with TCAA staff and reprioritize/reprogram projects given the existing operational demand and federal and state funding eligibility criteria and potential based upon current regulatory guidance. The CIP will be evaluated from system wide perspective and include consideration for projects at TIX and X21. The end product for this subtask will be a revised five-year CIP provided in tabular form.

7.2 COORDINATE PROJECT SEQUENCING

Project sequencing will be discussed and reviewed with TCAA staff to identify the recommended short-, intermediate-, and long-term capital improvement projects to comprise the CIP list. The anticipated sequence for each project will be based on the improvements needed to satisfy demand during the planning periods and prerequisite project requirements where necessary. The various facility development projects will be prioritized and correlated with the staging plans for the Recommended Airport Improvement Plan resulting from the selected alternatives. The CIP phasing will be determined for the short- (0-5 years), intermediate- (6-10 years), and long-term (11-20 years) planning periods.

7.3 DEVELOP CIP AND FUNDING SOURCES

This subtask includes an overview of the various funding sources available for each project identified in the previous subtasks and color-coded drawings illustrating recommended phasing for project implementation to satisfy the needs of short-, intermediate-, and long- forecast of aviation demand. This subtask will also identify reasonable annual funding levels that can be used for financial planning purposes for each funding source identified, recognizing that funding eligibility does not equate to what can reasonable be anticipated as annual funding allocations. The CIP will be summarized in tabular format and organized by year and include the project name, escalated project cost, and potential funding sources. Short- and intermediate-term projects will be separated into design and construction (as appropriate) and long-term projects will be presented as a total cost, inclusive of design and construction.

7.4 PREPARE DRAFT PROJECT SUMMARIES AND EXHIBITS

This task will include the development of graphic exhibits depicting the proposed capital improvement projects for up to 25 projects. In addition, summary sheets will be developed for each project in the short- and intermediate-

term planning periods. The summary sheets will facilitate the future programming of each project in the Joint Automated Capital Improvement Program (JACIP) for the Airport. It is anticipated the project summary sheets will include the following information:

- Name of and a brief description of the project
- Project justification: a brief explanation of why the project is needed
- Site information: Location map indicating the project location and clarifying limits of development/construction
- Projected timing (short- or intermediate-term) or demand trigger (if applicable)
- ROM cost for the proposed project including unit costs for civil line items and percentages for electrical and drainage items; costs will also be escalated accordingly
- FAA's National Priority Rating
- Source of funds: anticipated sources of funding for the projects
- Environmental documentation: identification of the type of environmental documentation (categorical exclusion, EA, or EIS) expected

7.5 PREPARE DRAFT WORKING PAPER

A draft CIP working paper summarizing the findings of each of the preceding tasks will be prepared and provided to Airport staff for their review. The draft working paper will be delivered to the Airport and other stakeholders (at the Airport staff's request) in Adobe PDF.

It is anticipated that Airport staff will review the draft working paper and provide comments to the Ricondo Team. Comments on the draft working paper will be addressed and responded to as appropriate and included in the final master plan report. A comment tracker, used throughout the MPU, will be developed to manage comments and responses. No supplemental draft will be issued.

7.6 MEETINGS

For budgeting purposes, it is assumed that the Ricondo Team would participate in up to two (2) meetings as part of this task. One meeting will be a teleconference using Microsoft Teams, or similar software, and one meeting will be in person at the TCAA office. For budgeting purposes, each meeting is anticipated to last approximately two (2) hours and be attended by up to two (2) members of the Ricondo Team. This subtask also includes the preparation and distribution of a summary of action items.

Exclusions

- Preparation of grant applications
- Preliminary engineering or architectural analysis

TASK 8. FINANCIAL PLAN

NOTE: The Financial Plan described in the task below considers the financial impact of the Recommended Airport Improvement Plans and CIPs for TIX, COI, and X21 collectively as a system of airports. The fee for this task has been spread across the three master plans (50% TIX, 30% COI, and 20% X21).

The results of the master planning analyses described in the prior tasks will be evaluated from a financial standpoint, taking into consideration expected levels of available FDOT, FAA entitlement, and FAA discretionary funding, availability of local funds, and any opportunities for third party funding. The analyses will help refine a phasing plan for the recommended improvements identified for TCAA that can be implemented in accordance with projected demand growth and emerging facility needs.

The financial plan will be prepared to outline the actions and initiatives necessary to carry out the CIP in a financially sound manner. Included in the financial plan will be the identification of specific funding sources, projections of revenues and expenses, and development of a preferred strategy for undertaking the CIP.

8.1 COLLECT AND REVIEW FINANCIAL DATA

The purpose of this task is to compile, present, and analyze applicable financial information for TCAA. This task will include a review of TCAA's financial structure to determine the composition of Airport management, relevant leases, and other operating issues that will affect future cash flow. The budgeting process used by TCAA will be examined and historical O&M expenses, operating revenue, and capital expenditures will be analyzed. The existing rates and charges schedule will also be examined, including tenant lease terms and rates. The financial information inventory will be used as a basis for development of the financial plan and feasibility of the capital program. Financial data will be collected to support the financial plan of this study and may include, but is not limited to, the following items:

- Summary of leases identifying key terms of each lease (if available)
- Most recent audited financial report
- Prior funding assistance
- Operating and maintenance expenditures, up to five years of available historical information
- Operating revenues, up to five years of available historical information
- General revenue fund balance, or current un-restricted cash on hand
- Anticipated capital expenditures for upcoming two years, including equipment, to be paid with TCAA cash funds/reserves

Ricondo will confirm significant data inputs with TCAA staff, including the assumptions of revenue and expense growth, lease renewals, and project impacts. After collection, Ricondo will work with TCAA staff to request and collect any additional information needed.

8.2 PREPARE FINANCIAL PLAN

This task includes the preparation of a financial plan for carrying out the proposed CIP for the Recommended Airport Improvement Plan and other recommendations/goals specified in the MPU. Included in the financial plan would be the identification and quantification of the need for and availability of specific funding sources, projections of

revenues and expenses, and a cash flow analysis. The output of this effort would consist of a financial plan that TCAA can use as a basis for implementing its proposed CIP.

8.2.1 PRO-FORMA ANALYSIS

The financial plan will assess, through the development of pro-forma financial projections, the financial implications of the funding plan. Pro-forma projections of operating expenses, operating revenues, and capital requirements of the CIP developed through prior tasks. Projections of operating revenues and expenses for the CIP will be based on the MPU's activity projections, assumptions regarding existing and anticipated future tenant leases, additional revenue enhancement opportunities, and estimated operating costs of proposed capital development projects.

8.2.2 SENSITIVITY ANALYSIS

Up to two (2) sensitivity scenarios will be developed to assess the potential financial implications of changes to key assumptions and variables, such as projected revenues, expenses, and activity. These sensitivity scenarios are not intended to be updated projections of activity, revenues, expenses, or other factors. Rather, the sensitivity scenarios will identify the projected range of financial outcomes that could occur. One additional sensitivity scenario will include the identification of potential opportunities for revenue enhancement at the TCAA airports. Such opportunities are likely to be in the form of non-aeronautical revenues.

8.3 PREPARE DRAFT OF FINANCIAL PLAN

A preliminary draft Financial Plan working paper summarizing the findings of each of the preceding tasks will be prepared and provided to TCAA staff for their review. The preliminary draft working paper will be delivered to the TCAA and other stakeholders (at TCAA staff's request) in Adobe PDF.

It is anticipated that Airport staff will review the draft working paper and provide comments to the Ricondo Team. Comments on the draft working paper will be addressed and responded to as appropriate and included in the final master plan report. A comment tracker, used throughout the MPU, will be developed to manage comments and responses. No supplemental draft will be issued.

8.4 MEETINGS

For budgeting purposes, it has been assumed that the Ricondo Team would participate in one (1) conference call using Microsoft Teams, or similar software, with TCAA staff during the duration of this task. The meeting is anticipated to last approximately four (4) hours and be attended by up to two (2) members of the Ricondo Team. This subtask also includes the preparation and distribution of meeting minutes.

TASK 9. REFINE THE PREFERRED ALTERNATIVE

9.1 ALTERNATIVE REFINEMENT

The Ricondo Team anticipates that during the evaluation of alternatives and selection of the Recommended Airport Improvement Plan, items may be identified relative to the various factors evaluated (design standards, environmental considerations, operational impacts, phasing, cost/affordability, or other factors) that will require further refinement. This task will focus on refining the Recommended Airport Improvement Plan to respond to any of the issues identified during the evaluation and selection process.

In addition, this subtask will serve to expand the level of detail and analysis provided for the Recommended Airport Improvement Plan. Additional detail will be provided relative to overall facility layouts, implementation impacts, and costs and financial impacts. As necessary, the Recommended Airport Improvement Plan will be refined relative to specific issues that may have been raised by TCAA staff or other parties during the evaluation and selection process..

The alternatives refinement will conclude with the preparation of an AutoCAD drawing depicting the following elements, among others:

- prominent Airport facilities such as the runways, taxiways, aprons, holding bays, blast pads, extended runway safety areas, buildings, NAVAIDs, parking areas, roads, and major drainage facilities
- revenue-producing nonaviation-related land uses
- areas reserved for future aviation development, including parcels that will be reserved for the ultimate development of aeronautical facilities
- areas reserved for nonaviation development
- GA/FBO and associated support facilities
- approach and departure surfaces and RPZ outlines
- pertinent dimensional data such as runway and taxiway widths and runway lengths, taxiway/runway/apron clearances and safety areas, apron dimensions, building restriction lines, clear zones (safety areas, object free areas, and obstacle free zones)

9.2 MEETINGS

For budgeting purposes, it has been assumed that the Ricondo Team would participate in one (1) teleconference with TCAA staff during the duration of this task. The meeting is anticipated to last approximately two (2) hours and be attended by up to two (2) members of the Ricondo Team. This subtask includes the preparation of the PowerPoint presentation to support the meeting and the preparation and distribution of a summary of action items.

Exclusions

- 3D renderings of the Recommended Airport Improvement Plan

TASK 10. AIRPORT LAYOUT PLAN SET

This effort is intended to produce the ALP drawing set required for the FAA and FDOT to review and conditionally approve the Recommended Airport Improvement Plan for the Airport. The ALP will be prepared in accordance with FAA standards as defined in FAA AC 150/5070-6, *Airport Master Plans*, FAA AC 150/5300-13B, *Airport Design*, and FAA ARP Standard Operating Procedure (SOP) 2.00, Review and Approval of ALPs. To support the submittal of this updated planning product, the Ricondo Team will also review, complete, and submit the checklist that is provided in the FAA SOP 2.00.

10.1 TITLE SHEET

A title sheet will be prepared in accordance with the FAA SOP 2.00 checklist to serve as the drawing set cover sheet. This title sheet will include pertinent information such as the airport name, owner/operator, location, and plan set preparer. An index of drawings, graphic representations of the airport location and airport vicinity will also be presented on the title sheet.

10.2 AIRPORT DATA SHEET

This sheet will contain data specific to the Airport Layout Plan sheet. This data will include the wind roses for the Airport's runways, runway data, safety separation distances, declared distance charts, elevations of specific Airport, runways and taxiway points, etc. Existing and proposed modifications to FAA airport design standards will be identified and delineated in table format along with either the waiver allowing the modification or the proposed method of addressing the modification. A table listing any modifications (existing and proposed) along with their proposed disposition will be incorporated onto the ALP sheet. The taxiway design group (TDG) for each taxiway will be identified along with other information specified in FAA SOP 2.00 ALP Review Checklist.

10.3 EXISTING AIRPORT LAYOUT PLAN

Utilizing new digital mapping for the Airport collected in Task 2, a new drawing will be created to identify facilities and geographical features at the Airport as they currently exist. This drawing will include existing structures, pavements, imaginary surfaces, NAVAIDs (visual and instrument), ground contours, runway protection zones, runway safety areas, property interests, and other pertinent dimensional data recommended by the FAA.

This drawing will reflect projects and other airport improvements that have materialized since the current ALP was last approved. This drawing will also depict the configuration and general dimensioning of the existing airport facilities, including surveyed building heights of all buildings on airport property. The Airport Reference Point (ARP), key elevations, runway end latitude/longitude coordinates, and runways approach surfaces will also be identified. The drawing will also include a legend and applicable notes section, wind roses, and wind coverage tables to be developed under Task 1A as well as a runway data and building data tables. The runway data table will include information such as Approach and Departure Reference Code (APRC and DPRC), Runway Design Code (RDC), runway length, runway width, runway end elevation, runway lighting, runway marking, pavement type, pavement strength and NAVAIDs (visual and instrument). The "true" and magnetic north will also be depicted, which will require the calculation of the magnetic declination at the Airport. Deviations to FAA design standards will be identified and noted appropriately.

The scale of the drawing will be defined at the time the ALP set is commenced and will be determined to provide a clearly legible drawing with all requisite data readily discernible. The scale of the drawing, however, will fall within the range of 1" = 200' and 1" = 600', in accordance with the FAA checklist.

10.4 AIRPORT LAYOUT PLAN

The Ricondo Team will create an ALP to reflect the Recommended Airport Improvement Plan. The ALP will illustrate existing and proposed airfield pavements, roadway and parking pavement/structures, runway markings, on-airport structures, key drainage features, NAVAIDs (visual and instrument), off-airport structures that are located in the immediate vicinity of the Airport, and other miscellaneous natural and man-made items. Established survey monuments located on or in the immediate vicinity of the Airport will also be identified.

Ground contours, runway protection zones, runway safety and object free areas, future property interests, and other pertinent dimensional data recommended by the FAA will also be depicted on the plan. The ARP (existing and proposed), the APRC and DPRC, and RDC for each runway, key elevations, runway end latitude/longitude coordinates, and runway approach surfaces will also be identified. Any proposed improvements and/or changes to these items will be depicted graphically and identified.

The ALP will be developed in accordance with the FAA checklist. Thus, each of the components of the ALP will contain the information necessary to obtain approval from the FAA.

10.5 AIRPORT AIRSPACE DRAWING

This drawing will depict the 14 Code of Federal Regulations (CFR) Part 77 (Part 77) imaginary surfaces as they relate to the Airport's immediate airspace in a plan and profile view. The plan view will be prepared at an approximate scale of 1" = 2,000' and will be overlaid onto a USGS 7-minute quadrangle base map (or orthophotography) of the surrounding area. The profile view will be prepared at a horizontal scale of 1" = 1,000' and a vertical scale of 1" = 100'.

The plan will illustrate the ultimate runway configuration of the airfield with key elevations of the surfaces and stationing from the runway ends being referenced. Fifty (50) foot contour intervals will be shown for all Part 77 sloping imaginary surfaces. This sheet will depict objects penetrating Part 77 surfaces that have not been identified on the ALP or inner approach drawings. The top elevation of each obstruction will be identified on the drawing, as will the disposition of the obstruction in a tabular format. The dimensions of the approach surfaces and transitional surfaces will be charted. Obstruction heights will be obtained from the new digital mapping and other available resources. In addition, all known obstructions to navigable airspace off-Airport will be identified using the latest USGS mapping, the NOAA Obstruction Chart, and the aeronautical sectional chart as applicable. No field obstruction surveys, however, will be completed as part of this subtask.

The FAA checklist will be reviewed (and completed) to confirm that the airport airspace drawing contains the information required by the FAA.

10.6 INNER PORTION OF THE APPROACH SURFACE DRAWINGS

These drawings will depict plan and profile views of the inner portion of the approach to each ultimate runway end at the Airport. These drawings will utilize a 1" = 200' horizontal scale for the plan and profile views and a 1" = 20' vertical scale for the profile views. The plan/profile extents will cover from the referenced runway out to a point

where the approach surface reaches a 100-foot height above the runway end. The new digital base mapping will be used to identify obstructions to navigable airspace.

In accordance with the FAA checklist, these drawings will depict the obstacle identification surfaces contained in Part 77, runway end/threshold siting surfaces, and Glideslope Qualification Surfaces (GQS). Obstructions will be listed numerically in tabular format for each approach with data describing the obstruction type; the surfaces penetrated top elevation, allowable elevation, amount of penetration, and proposed disposition. Elevations of roads, railroads, power poles, trees, buildings, and other objects that are located within the approaches will also be shown.

The drawings will also depict the runway end/threshold siting surfaces associated with each runway end. These surfaces will be defined based on the type of instrument approaches anticipated and the design aircraft for each runway end in accordance with the standards defined in FAA AC 5300-13B, *Airport Design*.

10.7 DEPARTURE SURFACE DRAWING

This subtask includes the preparation of a drawing depicting the departure surfaces prescribed in FAA Order 8260.3D, *United States Standard for Terminal Instrument Procedures (TERPS)* for Runway 15-33. The sheet will consist of a scaled plan and profile drawing of the area within the 40:1 departure surface. The drawing will depict the location of potential obstructions and corresponding tables listing objects, departure surface penetrations, object top elevation, and proposed disposition.

10.8 EXISTING LAND USE DRAWING

This drawing will depict land uses on and adjacent to existing Airport property. The on-Airport land uses will be depicted by general use categories such as aviation, commercial, industrial, non-aviation revenue producing, public use, etc. The off-airport land uses in the immediate vicinity of the Airport will be defined based on the City of Titusville land use maps.

10.9 PROPOSED LAND USE DRAWING

This drawing will depict proposed land uses on and adjacent to existing and proposed Airport property. Similar to the Existing Land Use Drawing, the on-Airport land uses will be depicted by general use categories such as aviation, commercial, industrial, non-aviation revenue producing, public use, etc. The specific designations to land use within the airport property limits will be discussed with TCAA staff and be revised as directed to reflect the categories that are desired and recommended as part of the MPU. The off-airport land uses in the immediate vicinity of the Airport will be defined based on the City of Titusville land use maps.

10.10 DELIVERABLES

10.10.1 DRAFT AIRPORT LAYOUT PLAN SET

The subtask includes the preparation and submission of an electronic (Adobe PDF) version and two (2) 24-inch by 36-inch hard copy sets of the ALP Set to TCAA staff for review and comment. It is anticipated that Airport staff will review the draft ALP set and provide comment and feedback to the Ricondo Team.

10.10.2 REVISE DRAFT AIRPORT LAYOUT PLAN AND RESPOND TO SPONSOR COMMENTS

The Ricondo Team will revise the ALP drawing set based on the comments received from the Airport accordingly. A revision tracker will be developed and utilized to summarize sponsor comments and the Ricondo Team's response.

10.10.3 PREPARE CHECKLISTS ACCORDING TO SOP 2.00

This subtask includes the preparation of the SOP 2.00 checklist for submission to the FAA and FDOT. The checklist will be prepared electronically and submitted to the FAA and FDOT during the ALP drawing set submissions.

10.10.4 REVISED DRAFT AIRPORT LAYOUT PLAN SET SUBMITTAL

Once comments have been received from TCAA staff and addressed, three (3) copies of the revised draft Airport Layout Plan drawing set will be submitted to X21 for distribution to the FAA (one copy), FDOT Aviation and Spaceports Office (one copy), and Airport staff (one copy). An electronic version of the drawings set will also be provided in Adobe PDF. The checklist prepared as part of the previous subtask will also be submitted to the FAA and FDOT to assist in the review process.

10.10.5 REVISE DRAFT AIRPORT LAYOUT PLAN SET AND RESPOND TO FAA AND FDOT COMMENTS

The Ricondo Team will revise the ALP drawing set based on the comments received from the FAA and FDOT accordingly. A revision tracker will be developed and utilized to summarize the FAA and FDOT comments and the Ricondo Team's response.

10.10.6 PREPARE FINAL AIRPORT LAYOUT PLAN SET

Once comments have been received from FAA and FDOT and addressed, eight (8) copies of the final Airport Layout Plan drawing set will be submitted to X21 for distribution to the FAA (five copies), FDOT Aviation and Spaceports Office (one copy), and Airport staff (two copies). An electronic version of the drawings set will also be provided in Adobe PDF. It is assumed that X21 will be responsible for forwarding the Airport Plans set to the FAA ADO for their review, coordination, approval, and signature. An electronic version of the drawings set will also be provided. The final drawings will be provided in both AutoCAD and Adobe PDF formats.

10.11 MEETINGS

For budgeting purposes, it has been assumed that the Ricondo Team would participate in one (1) two (2) hour ALP "page flip" at the Airport. This meeting will provide an opportunity to present the draft ALP drawing set to TCAA staff and to review the proposed projects to be reflected on the ALP. The meeting will be attended by up to two (2) members of the Ricondo Team. This subtask includes the plotting of two (2) ALP sets and the preparation and distribution of a summary of action items.

Exclusions

- Terminal Area Plan
- Utility Plan

TASK 11. EXHIBIT 'A' AIRPORT PROPERTY INVENTORY MAP

11.1 TITLE WORK

This subtask will include researching the ownership, easements, agreements, and encumbrances associated with a maximum of 67 parcels. The Ricondo Team will review the Airport Property Map dated April 2007 and any additional property records provided by the TCAA and the Brevard County Property Appraiser. To ensure the proper identification of all parcels to be searched, the team will use the information shown on the map(s) to develop a master spreadsheet. This spreadsheet will serve as the project control document for all parcels within the project area. The following steps will be taken to ensure that all parcels have been properly identified and assigned:

- The tax identification number(s) for each parcel are confirmed against county records.
- The tax information is entered on the master spreadsheet.
- Parcels are “batched” according to relevant criteria.
- The abstractor(s) assigned to the parcel(s) will research the titles from the earliest public records, unless otherwise specifically directed by TCAA staff, for all airport ownership, easements, agreements, etc. (No leases, liens or mortgages will be included).
- Independently research the parent tract for contiguous lands.

Upon the completion of the research, a Specific Purpose Report will be completed on each Parcel ID number. Parcel ID's with the same vesting information will be combined into one report.

11.2 BOUNDARY SURVEY

The Ricondo Team will perform a Boundary Survey of up to 12 parcels combined to form approximately 200+/- acres assumed to represent property owned by the TCAA, as depicted on the Airport Property Map dated April 2007. Additionally, a maximum of twelve (12) easements are assumed to be owned by the TCAA. Title reports produced as part of subtask 11.1 will be reviewed to determine encumbrances reflected therein that should be reflected on the boundary survey of each property. Individual small parcels of land originally acquired for noise purposes will not be individually surveyed as part of this project. Property acquired since the completion of the 2007 map will be added to the property inventory.

Once the field data collection is completed and all field QA/QC checks have been made, all raw data files will be processed and subsequently imported into AutoCAD software for the creation of the final project drawings and reports. The final Boundary Survey deliverable will be compiled from all field data collected, a review of all title searches and documentation amassed from public records sources for each individual parcel boundary survey.

The field location of each parcel's boundary monumentation will be compared to the legal description of each parcel and the final location of each parcel boundary will be determined. All work will be performed in accordance with the standards of practice outlined in Chapter 5J-17 of the Florida Administrative Code, pursuant to Section 472.027, Florida Statutes.

11.3 EXHIBIT 'A' AIRPORT PROPERTY INVENTORY MAP

This subtask includes the development of an Exhibit 'A' Airport Property Inventory Map. The deliverable will be prepared at a scale equal to that of the ALP and will depict the existing airport property boundary as well as proposed acquisition areas. The drawing will indicate in matrix form how, when, and from whom the various parcels were acquired. The data table will include (if available): number or letter and area of each parcel or easement, date property was acquired or disposed (recorded date), recorded document number (book/page), encumbrance (if applicable), Brevard County Tax ID, Federal Aid project number under which the property acquisition was reimbursed, type of acquisition (i.e. AIP-noise, AIP entitlement, surplus property, local purchase, local donation, condemnation, other), grantor of property, and acreage. The Exhibit 'A' Airport Property Inventory Map will also document existing easements within the Airport boundary.

The updating of the property map will conform with the guidelines discussed in the FAA's Standard Operating Procedure (SOP 3.00) for FAA Review of Exhibit 'A' Airport Property Inventory Maps (dated October 1, 2013). FAA SOP 2.00 also provides the same Airport Property Inventory Map/Exhibit A guidelines.

11.4 PREPARE CHECKLIST ACCORDING TO SOP 3.00

The SOP 3.00 Exhibit 'A' Review Checklist will be completed to ensure that all FAA Exhibit 'A' Property Inventory Map requirements are met. The checklist will be submitted to TCAA as part of the Exhibit 'A' Property Inventory Map package for review and comment. Additionally, this checklist will be submitted to the FAA to aide in the review process of the Exhibit 'A' Property Inventory Map set.

11.5 MEETINGS

The Ricondo Team anticipates that up to six (6) teleconferences will be conducted as part of this subtask: four (4) with the title abstractor and surveyor and two (2) with TCAA staff. Each meeting is anticipated to last approximately one (1) hour and be attended by up to two (2) members of the Ricondo Team. A summary of action items will be developed for the two meetings with TCAA staff.

Exclusions

- No residential aviation easement identification and mapping beyond what is provided on the Airport Property Map completed in 2021.
- No site improvements/encroachments will be located as part of each boundary survey.

TASK 12. DOCUMENTATION

The final MPU deliverables will include technical reports for each of the key tasks, an Executive-Summary (brochure format), and an executive level PowerPoint slide deck briefing.

12.1 DEVELOP POWERPOINT TEMPLATE

This task will include the development of a professionally designed PowerPoint template used throughout the master planning process. The template will be designed to incorporate the Airport's branding, including logo, fonts, and color schemes. The PowerPoint template will be used in all stakeholder and public outreach efforts and for all presentations related to the MPU.

12.2 EXECUTIVE SUMMARY

12.2.1 PREPARE EXECUTIVE SUMMARY BROCHURE

The Ricondo Team will prepare and submit a draft Executive Summary in a brochure format that summarizes the results of the aviation forecasts, the facility requirements, alternatives, Recommended Airport Improvement Plan, and CIP to TCAA staff for review and comment. Upon receipt of TCAA staff comments, the Ricondo Team will prepare a final draft for TCAA review and comment. Following the final review by TCAA staff, the Ricondo Team will prepare the final Executive Summary brochure which will include up to 20 single-sided pages (8.5"x 11" using 100 lb. paper) with color exhibits. The Ricondo team will provide a total of 25 copies and an electronic file version in Adobe PDF format of the Executive Summary.

12.2.2 PREPARE EXECUTIVE SUMMARY POWERPOINT

In consultation with TCAA staff, the Ricondo Team will develop a concise (not to exceed 25 slides) PowerPoint presentation summarizing the MPU process, Recommended Airport Improvement Plan, and CIP.

12.3 PREPARE DRAFT AIRPORT MASTER PLAN UPDATE REPORT

A draft MPU report will be prepared that will summarize the findings of each of the tasks described earlier, delineating the methodology, assumptions, and findings of the various planning analyses undertaken.

This MPU report will be comprehensive in terms of the information presented to allow review and comment by the appropriate parties. Upon receipt of review and comments from the TCAA, the report will be finalized, representing the MPU Final Report. Five (5) comb bound draft final reports will be prepared for distribution. In addition, an electronic file version in Adobe PDF format of the draft report will be provided.

12.4 RESPOND TO SPONSOR, FAA, AND FDOT COMMENTS

Upon receipt of comments from TCAA staff, FAA, and FDOT on the draft MPU Report, the Ricondo Team will revise the report and prepare a response to the comments. The comments will be summarized using a comment tracker.

12.5 PREPARE FINAL AIRPORT MASTER PLAN UPDATE REPORT

The MPU Final Report, consolidating all working papers for each of the key tasks included in this Scope of Services, will be prepared after all agency and participants have made their comments on the draft final report and TCAA staff has directed the Ricondo Team to incorporate these comments into a final report.

Twelve (12) bound final reports of the X21 MPU will be prepared for distribution. Of these copies, one (1) will be forwarded to the FAA's Orlando ADO, and one (1) will be forwarded to the FDOT Aviation and Spaceports office. The remaining ten (10) copies will be sent to the TCAA staff for internal and TCAA distribution -one (1) copy for each of the seven (7) board members and three (3) copies for TCAA staff. Files of final chapters and associated graphics will be provided electronically to TCAA staff.

TASK 13. PROJECT ADMINISTRATION AND COORDINATION

13.1 GRANT SERVICES

The Ricondo Team will provide grant services to TCAA staff in the form of assistance with the preparation and submittal of Grant Pre-Applications, Grant Applications, FAA Quarterly Grant Reports and Grant Closeout Documents. Grant application assistance will include the development of project descriptions and justifications, verifications of project costs, and the completion of Categorical Exclusion (CATEX) documentation. Quarterly reporting assistance will include the preparation of the Grant Quarterly Report Checklist, Project Status Summary, and Outlay Report/Reimbursement documentation. Grant closeout documentation gathered will include a project closeout summary, DBE participation summary, project cost summary, outlay report, and distribution cost summary.

13.2 DEVELOP MONTHLY STATUS REPORTS

This subtask will include the development of project status reports on a monthly basis and invoicing of the project. The status reports will describe progress on a task-by-task basis. For budgeting purposes, it is anticipated that sixteen (16) monthly status reports will be prepared.

13.3 OTHER MEETINGS (IN ADDITION TO THOSE IDENTIFIED WITHIN THE PREVIOUS INDIVIDUAL TASKS)

13.3.1 KICK-OFF MEETING

The Ricondo Team (including up to two representatives from the Ricondo Team) will participate in a project kick-off meeting to discuss project objectives and schedules with TCAA staff and other agencies, (e.g., FAA, FDOT). The Ricondo Team will prepare meeting/presentation materials, using Microsoft PowerPoint, to provide a general overview of the Study. For budgeting purposes, it is anticipated the kick-off meeting will last up to two (2) hours.

13.3.2 TCAA STAFF COORDINATION CALLS

In addition to the kick-off meeting, additional meetings to facilitate coordination, provide updates and present progress on specific study elements or technical analyses are needed between the Ricondo Team and TCAA staff. For budgeting purposes, it has been assumed that one (1) member of the Ricondo Team will participate in up to twelve (12) one (1) hour web conference sessions using Microsoft Teams or similar software. These web conference sessions will provide an opportunity to discuss the status of the MPU, preliminary findings, etc. An agenda for these conference sessions will be prepared and distributed to TCAA staff.

13.3.3 FAA COORDINATION BRIEFINGS

This proposal includes up to two (2) separate meetings between the Ricondo Team, TCAA staff, and the FAA to provide updates, request feedback, and present progress on specific study elements or technical analyses of the MPU. For budgeting purposes, it is assumed that two (2) members of the Ricondo Team would participate in two (2) in-person meetings at the FAA's Orlando ADO. Each meeting is estimated to last two (2) hours and are anticipated to include the topics:

- Aviation activity forecast, aircraft fleet mix, and design aircraft
- ALP set review

The development of the material noted above, including accompanying technical analyses, would be conducted as part of each specific task. However, this subtask includes the effort needed to compile and prepare a presentation on the items noted above, as well as the preparation and distribution of meeting minutes.

13.3.4 FDOT COORDINATION BRIEFING

In addition to the two TAP briefings (see Task 1E), a separate meeting (1 meeting) to facilitate coordination, provide updates and present progress on specific study elements or technical analyses is likely to be required between the Ricondo Team, TCAA staff, and FDOT. For budgeting purposes, it has been assumed that the two (2) hour meeting would be conducted via a web conference using Microsoft Teams or similar software. Alternatively, this meeting could take place before or after one of the meetings that will take place at the Airport. This subtask also includes the preparation of the presentation and materials to be presented during the meeting, as well as the preparation and distribution of meeting minutes. This meeting will be attended by up to two (2) members of the Ricondo Team.

Exclusions

- Separate kick-off meetings with FAA, FDOT, or regional/local agencies

FEE PROPOSAL AND SCHEDULE OF MEETINGS

The lump sum fees (by firm) for the professional planning services outlined in this Scope of Services are summarized in **Table 2. Appendix A** provides a cost breakdown by subtask and labor category for Ricondo. Proposals from Ricondo's sub-consultants are included in **Appendix B** through **E**.

Table 3 provides a summary of the meetings that are anticipated to take place during the MPU.

TABLE 2 ARTHUR DUNN AIRPARK MASTER PLAN UPDATE FEE PROPOSAL

Tasks		Ricondo	AID (DBE)	Brown & Phillips, Inc. (DBE)	The Quotient Group (DBE)	Martinez Geospatial (DBE)	Total
1A	Inventory of Existing Conditions	\$ 19,264.00	\$ 29,096.00	\$ -	\$ 4,000.00	\$ -	\$ 52,360.00
1B	Emerging Trends and Technologies	\$ 6,200.00	\$ -	\$ -	\$ -	\$ -	\$ 6,200.00
1C	Visioning Session with TCAA Board	\$ 4,689.00	\$ 276.00	\$ -	\$ -	\$ -	\$ 4,965.00
1D	Strengths and Opportunities Assessment	\$ 5,209.00	\$ 276.00	\$ -	\$ -	\$ -	\$ 5,485.00
1E	Stakeholder and Public Involvement	\$ 48,488.00	\$ -	\$ -	\$ 8,000.00	\$ -	\$ 56,488.00
2	Aerial Surveying and Mapping	\$ 8,320.00	\$ -	\$ 31,119.00	\$ -	\$ 69,576.89	\$ 109,015.89
3	Aviation Activity Forecasts	\$ 24,294.00	\$ -	\$ -	\$ -	\$ -	\$ 24,294.00
4	Demand/Capacity Analysis and Airport Requirements	\$ 37,629.00	\$ -	\$ -	\$ -	\$ -	\$ 37,629.00
5	Formulate Alternatives	\$ 27,789.00	\$ 10,048.00	\$ -	\$ -	\$ -	\$ 37,837.00
6	Environmental Overview	\$ 10,525.00	\$ -	\$ -	\$ -	\$ -	\$ 10,525.00
7	Capital Improvement Program	\$ 35,498.00	\$ -	\$ -	\$ -	\$ -	\$ 35,498.00
8	Financial Plan	\$ 18,728.00	\$ -	\$ -	\$ -	\$ -	\$ 18,728.00
9	Refine The Preferred Alternative	\$ 8,116.00	\$ -	\$ -	\$ -	\$ -	\$ 8,116.00
10	Airport Layout Plan Set	\$ 49,368.00	\$ -	\$ -	\$ -	\$ -	\$ 49,368.00
11	Exhibit 'A' Airport Property Inventory Map	\$ 2,240.00	\$ 57,286.00	\$ 17,842.00	\$ -	\$ -	\$ 77,368.00
12	Documentation	\$ 32,620.00	\$ -	\$ -	\$ 6,000.00	\$ -	\$ 38,620.00
13	Project Administration and Coordination	\$ 16,816.00	\$ 17,960.00	\$ -	\$ -	\$ -	\$ 34,776.00
Grand Total		\$ 355,793.00	\$ 114,942.00	\$ 48,961.00	\$ 18,000.00	\$ 69,576.89	\$ 607,272.89
Share (Required Tasks)		58.59%	18.93%	8.06%	2.96%	11.46%	100.00%
DBE Total (Required Tasks)				41.4%			
SOURCES: Ricondo & Associates, Inc., May 2022; American Infrastructure Development, Inc., May 2022; Martinez Geospatial Proposal, May 2022; Brown & Phillips, Inc., May 2022; The Quotient Group, May 2022.							
Legend							
		Costs Spread Evenly Across Three MPUs					
		Costs Spread Across Three MPUs - 50% TIX, 30% COI, and 20% X21					
		Costs for Subtasks 1E.3.2 and 1E.4.2 Spread Evenly Across Three MPUs					

TABLE 3 ARTHUR DUNN AIRPARK MASTER PLAN UPDATE SCHEDULE OF MEETINGS

MEETING NUMBER	ASSOC. TASK NUMBER	MEETING DESCRIPTION	ANTICIPATED DURATION	RICONDO TEAM PARTICIPANTS	MEETING MATERIALS PREPARED
1	1A	Site Visit	4 hours	2	Checklist and Corresponding Exhibits
2	1C	Visioning Session	2 hours	3	PowerPoint Presentation
3	1D	Strength and Opportunities Assessment (Meeting with TCAA Staff)	2 hours	2	PowerPoint Presentation, Summary of Action Items
4	1D	Strength and Opportunities Assessment (Meeting with TCAA Board Members)	2 hours	2	PowerPoint Presentation
5	1E	TAP Briefing #1	2 hours	2	PowerPoint Presentation, Meeting Minutes
6	1E	TAP Briefing #2	2 hours	2	PowerPoint Presentation, Meeting Minutes
7	1E	TAP Briefing #3	2 hours	2	PowerPoint Presentation, Meeting Minutes
8	1E	CAP Briefing #1	2 hours	2	PowerPoint Presentation, Meeting Minutes
9	1E	CAP Briefing #2	2 hours	2	PowerPoint Presentation, Meeting Minutes
10	1E	CAP Briefing #3	2 hours	2	PowerPoint Presentation, Meeting Minutes
11	1E	TCAA Workshop #1	2 hours	3	Display Boards and/or PowerPoint Presentations, Meeting Minutes
12	1E	TCAA Workshop #2	2 hours	3	Display Boards and/or PowerPoint Presentations, Meeting Minutes
13	1E	TCAA Board Briefings #1	2 hours	2	PowerPoint Presentation
14	1E	TCAA Board Briefings #2	2 hours	2	PowerPoint Presentation
15	1E	Public Workshop #1	3 hours	3	Meeting Notice, Meeting Advertisement, Completed Comment forms and Sign-in Sheets, Summary of Action Items
16	1E	Public Workshop #2	3 hours	3	Meeting Notice, Meeting Advertisement, Completed Comment forms and Sign-in Sheets, Summary of Action Items
17	3	FBOs Coordination Meeting (Virtual Meeting)	2 hours	2	PowerPoint Presentation
18	3	FBOs Coordination Meeting (Virtual Meeting)	2 hours	2	PowerPoint Presentation
19	3	TCAA Briefing (Virtual Meeting)	2 hours	2	PowerPoint Presentation, Summary of Action Items
20	3	FAA/FDOT Briefing (Virtual Meeting)	2 hours	2	PowerPoint Presentation, Summary of Action Items
21	4	TCAA Coordination Meeting (Virtual Meeting)	2 hours	2	PowerPoint Presentation, Summary of Action Items
22	5	TCAA Coordination Meeting	2 hours	2	PowerPoint Presentation, Summary of Action Items
23	5	TCAA Coordination Meeting	2 hours	2	PowerPoint Presentation, Summary of Action Items
24	7	TCAA Coordination Meeting (Virtual Meeting)	2 hours	2	PowerPoint Presentation, Summary of Action Items
25	7	TCAA Coordination Meeting (TCAA Office)	2 hours	2	PowerPoint Presentation, Summary of Action Items
26	8	TCAA Coordination Meeting (Virtual Meeting)	4 hours	2	PowerPoint Presentation, Meeting Minutes
27	9	TCAA Coordination Meeting (Virtual Meeting)	2 hours	2	PowerPoint Presentation, Summary of Action Items
28	10	ALP "Page Flip" with TCAA	2 hours	2	2 ALP Sets, Summary of Action Items

MEETING NUMBER	ASSOC. TASK NUMBER	MEETING DESCRIPTION	ANTICIPATED DURATION	RICONDO TEAM PARTICIPANTS	MEETING MATERIALS PREPARED
29	11	TCAA Coordination Meeting (Virtual Meeting) x 2	1 hour	2	Summary of Action Items
30	11	Title Abstractor (Virtual Meeting) x 4	1 hour	2	None
31	13	Kick-Off Meeting	2 hours	2	PowerPoint Presentation
32	13	TCAA Staff Coordination Calls (Virtual Meeting) x 12	1 hour	1	Agenda, Summary of Action Items
33	13	FAA Coordination Briefings (at FAA's Orlando ADO) – Forecasts, Fleet Mix, Design Aircraft	2 hours	2	PowerPoint Presentation, Meeting Minutes
34	13	FAA Coordination Briefings (at FAA's Orlando ADO) – ALP Set Review	2 hours	2	ALP Set and Meeting Minutes
35	13	FDOT Coordination Briefing (Virtual Meeting)	2 hours	2	PowerPoint Presentation, Meeting Minutes

NOTES:

ADO – Airports District Office

ALP – Airport Layout Plan

CAP – Citizens Advisory Panel

FAA – Federal Aviation Administration

FDOT – Florida Department of Transportation

TAP – Technical Advisory Panel

TCAA – Titusville-Cocoa Airport Authority

1. The meetings are anticipated to be held on-site at the Airport or at TCAA Administration Building unless otherwise indicated in the table above.

APPENDIX A RICONDO & ASSOCIATES, INC. FEE PROPOSAL

Arthur Dunn Airpark (X21)
 Airport Master Plan Update
 Labor/Fee Estimate Summary - Ricondo & Associates, Inc.

LEGEND

Highlighted tasks include elements that are applicable to the TIX, COI, and X21 Airport Master Plan Updates. The total costs for these tasks have been spread across the three Airport Master Plans. The hours and expenses on this Labor/Fee Estimate Summary do not reflect task totals, only the portion allocated to this Airport Master Plan.

BILLING RATE (SEE NOTE #1):												

Arthur Dunn Airpark (X21)
Airport Master Plan Update
Labor/Fee Estimate Summary - Ricondo & Associates, Inc.

LEGEND

Highlighted tasks include elements that are applicable to the TIX, COI, and X21 Airport Master Plan Updates. The total costs for these tasks have been spread across the three Airport Master Plans. The hours and expenses on this Labor/Fee Estimate Summary do not reflect task totals, only the portion allocated to this Airport Master Plan.

BILLING RATE (SEE NOTE #1):													\$	389.00	\$	330.00	\$	260.00	\$	160.00	\$	142.00	\$	120.00
													LABOR ESTIMATE (HOURS)					FEE ESTIMATE (\$)						
Task Number and Description			Responsibility	Officer	Director	Managing Consultant	Senior Consultant	Consultant	Technical Specialist	Total	Labor	Expenses	Sub - consultants Expenses	Total										
3.4.2 Prepare Final Working Paper			R&A	0	0		0	8	0	8	\$	1,136		\$	1,136									
3.5 Meetings (4 virtual meetings)			R&A	2	0	0	0	8	0	20	\$	4,514		\$	4,514									
4	Demand/Capacity Analysis and Airport Requirements			1	0	54	64	0	108	227	\$	37,629	\$	-	\$	-	\$	37,629						
4.1 Airfield																								
4.1.1 Airfield Demand/Capacity Assessment			R&A	0	0	6	12	0	12	30	\$	4,920			\$		\$	4,920						
4.1.2 Runway Length Requirements			R&A	0	0	6	8	0	8	22	\$	3,800			\$		\$	3,800						
4.1.3 Airport Requirements			R&A	0	0	4	4	0	16	24	\$	3,600			\$		\$	3,600						
4.2 General Aviation And Fixed Base Operator Facilities			R&A	0	0	2	8	0	24	34	\$	4,680			\$		\$	4,680						
4.3 Support Facilities			R&A	0	0	4	4	0	8	16	\$	2,640			\$		\$	2,640						
4.4 Landside Facilities			R&A	0	0	4	4	0	8	16	\$	2,640			\$		\$	2,640						
4.5 Prepare Draft Working Paper			R&A	1	0	24	24	0	24	73	\$	13,349			\$		\$	13,349						
4.6 Meetings (1 virtual meeting)			R&A	0	0	4	0	0	8	12	\$	2,000			\$		\$	2,000						
5	Formulate Alternatives			1	0	34	26	100	0	161	\$	27,589	\$	200	\$	-	\$	27,789						
5.1 Airfield Alternatives			R&A	0	0	4	4	12	0	20	\$	3,384			\$		\$	3,384						
5.2 Develop and Evaluate General Aviation Facility Concept Plans			R&A	0	0	4	4	14	0	22	\$	3,668			\$		\$	3,668						
5.3 Develop Support Facility Concept Plans			R&A	0	0	2	4	12	0	18	\$	2,864			\$		\$	2,864						
5.4 Develop Overall Airport Campus Concept Plans			R&A	0	0	4	4	12	0	20	\$	3,384			\$		\$	3,384						
5.5 Evaluate Alternatives/Concepts			R&A	0	0	4	4	12	0	20	\$	3,384			\$		\$	3,384						
5.6 Develop Rough Order of Magnitude Cost Estimates			AID/R&A	0	0	4	0	0	0	4	\$	1,040			\$		\$	1,040						
5.7 Prepare Draft Working Paper			R&A	1	0	4	6	30	0	41	\$	6,649			\$		\$	6,649						
5.8 Meetings (2 in person meetings)			R&A	0	0	8	0	8	0	16	\$	3,216	\$	200			\$	3,416						
6	Environmental Overview			1	6	8	22	18	0	55	\$	10,525	\$	-	\$	-	\$	10,525						
6.1 Evaluation of Proposed Development			R&A	0	0	4	6	0	0	10	\$	2,000			\$		\$	2,000						
6.2 Airport Recycling, Reuse and Waste Reduction Plan			R&A	0	2	0	4	6	0	12	\$	2,152			\$		\$	2,152						
6.3 Prepare Draft Working Paper			R&A	1	2	4	6	12	0	25	\$	4,753			\$		\$	4,753						
6.4 Meetings (1 virtual meeting)			R&A	0	2	0	6	0	0	8	\$	1,620			\$		\$	1,620						
7	Capital Improvement Program			2	0	60	0	90	52	204	\$	35,398	\$	100	\$	-	\$	35,498						
7.1 Validation and Reprogramming of Existing Five-Year CIP			R&A	1	0	10	0	16	0	27	\$	5,261			\$		\$	5,261						
7.2 Coordinate Project Sequencing			R&A	0	0	8	0	8	8	24	\$	4,176			\$		\$	4,176						
7.3 Develop Capital Improvement Program and Funding Sources			R&A	0	0	12	0	16	8	36	\$	6,352			\$		\$	6,352						
7.4 Prepare Draft Project Summaries And Exhibits			R&A	0	0	10	0	34	28	72	\$	10,788			\$		\$	10,788						
7.5 Prepare Draft Working Paper			R&A	1	0	12	0	16	0	29	\$	5,781			\$		\$	5,781						
7.6 Meetings (1 in person meeting, 1 virtual meeting)			R&A	0	0	8	0	0	8	16	\$	3,040	\$	100			\$	3,140						
8	Financial Plan			2	15	38	18	0	2	75	\$	18,728	\$	-	\$	-	\$	18,728						
8.1 Collect and Review Financial Data			R&A	0	2	8	2	0	0	12	\$	3,060			\$		\$	3,060						
8.2 Prepare Financial Plan																								
8.2.1 Pro-Forma Analysis			R&A	0	4	12	4	0	0	20	\$	5,080			\$		\$	5,080						
8.2.2 Sensitivity Analysis			R&A	0	6	10	8	0	0	24	\$	5,860			\$		\$	5,860						
8.3 Prepare Draft of Financial Plan			R&A	2	2	6	2	0	2	14	\$	3,558			\$		\$	3,558						
8.4 Meetings (1 virtual meeting)			R&A	0	1	2	2	0	0	5	\$	1,170			\$		\$	1,170						
9	Refine The Preferred Alternative			0	0	14	0	18	16	48	\$	8,116	\$	-	\$	-	\$	8,116						
9.1 Alternatives Refinement			R&A	0	0	12	0	16	16	44	\$	7,312			\$		\$	7,312						
9.2 Meetings (1 virtual meeting)			R&A	0	0	2	0	2	0	4	\$	804			\$		\$	804						
10	Airport Layout Plan Set			0	2	29	0	64	254	349	\$	47,768	\$	1,600	\$	-	\$	49,368						
10.1 Title Sheet			R&A	0	0	1	0	2	8	11	\$	1,504			\$		\$	1,504						
10.2 Airport Data Sheet			R&A	0	0	1	0	0	24	25	\$	3,140			\$		\$	3,140						
10.3 Existing Airport Layout			R&A	0	0	1	0	2	28	31	\$	3,904			\$		\$	3,904						
10.4 Airport Layout Plan			R&A	0	0	1	0	2	30	33	\$	4,144			\$		\$	4,144						
10.5 Airport Airspace Drawing			R&A	0	0	1	0	4	24	29	\$	3,708			\$		\$	3,708						
10.6 Inner Portion of the Approach Surface Drawings			R&A	0	0	1	0	4	24	29	\$	3,708			\$		\$	3,708						
10.7 Departure Surface Drawing			R&A	0	0	1	0	4	24	29	\$	3,708			\$		\$	3,708						
10.8 Existing Land Use Drawing			R&A	0	0	1	0	2	16	19	\$	2,464			\$		\$	2,464						
10.9 Proposed Land Use Drawing			AID/R&A	0	0	1	0	2	16	19	\$	2,464			\$		\$	2,464						
10.10 Deliverables																								
10.10.1 Draft Airport Layout Plan Set			R&A	0	2	4	0	12	12	30	\$	4,844	\$	200			\$	5,044						
10.10.2 Revise Draft Airport Layout Plan and Respond to Sponsor Comments			R&A	0	0	1	0	8	16	25	\$	3,316			\$		\$	3,316						
10.10.3 Prepare Checklists According to SOP 2.00			R&A	0	0	1	0	4	8	13	\$	1,788			\$		\$	1,788						
10.10.4 Revised Draft Airport Layout plan Set Submittal			R&A	0	0	1	0	4	8	13	\$	1,788	\$	300			\$	2,088						
10.10.5 Revise Draft Airport Layout Plan Set and Respond to FAA and FDOT Comments			R&A	0	0	1	0	4	8	13	\$	1,788			\$		\$	1,788						

Arthur Dunn Airpark (X21)
 Airport Master Plan Update
 Labor/Fee Estimate Summary - Ricondo & Associates, Inc.

LEGEND

Highlighted tasks include elements that are applicable to the TIX, COI, and X21 Airport Master Plan Updates. The total costs for these tasks have been spread across the three Airport Master Plans. The hours and expenses on this Labor/Fee Estimate Summary do not reflect task totals, only the portion allocated to this Airport Master Plan.

BILLING RATE (SEE NOTE #1):													
	\$	389.00	\$	330.00	\$	260.00	\$	160.00	\$	142.00	\$	120.00	
LABOR ESTIMATE (HOURS)										FEE ESTIMATE (\$)			
Task Number and Description	Responsibility	Officer	Director	Managing Consultant	Senior Consultant	Consultant	Technical Specialist	Total		Labor	Expenses	Sub - consultants Expenses	Total
10.10.6 Prepare Final Airport Layout Plan Set	R&A	0	0	8	0	6	8	22	\$	3,892	\$ 800		\$ 4,692
10.11 Meetings (1 in person meeting)	R&A	0	0	4	0	4	0	8	\$	1,608	\$ 300		\$ 1,908
11 Exhibit 'A' Airport Property Inventory Map		0	0	4	0	0	10	14	\$	2,240	\$ -	\$ -	\$ 2,240
11.1 Title Work	AID	0	0	0	0	0	0	0	\$	-			\$ -
11.2 Boundary Survey	AID/B&P	0	0	0	0	0	0	0	\$	-			\$ -
11.3 Exhibit 'A' Airport Property Inventory Map	AID/B&P/R&A	0	0	2	0	0	10	12	\$	1,720			\$ 1,720
11.4 Prepare Checklist According to SOP 3.00	AID	0	0	1	0	0	0	1	\$	260			\$ 260
11.5 Meetings (6 virtual meetings)	AID/B&P/R&A	0	0	1	0	0	0	1	\$	260			\$ 260
12 Documentation		4	10	10	40	92	0	156	\$	26,920	\$ 5,700	\$ -	\$ 32,620
12.1 Develop PowerPoint Template	TQG	0	0	0	0	0	0	0	\$	-			\$ -
12.2 Executive Summary													
12.2.1 Prepare Executive Summary Brochure	R&A/TQG	1	2	2	12	24	0	41	\$	6,897	\$ 1,000		\$ 7,897
12.2.2 Prepare Executive Summary Powerpoint	R&A	1	2	0	8	8	0	19	\$	3,465			\$ 3,465
12.3 Prepare Draft Airport Master Plan Update Report	R&A	1	2	6	4	32	0	45	\$	7,793	\$ 1,200		\$ 8,993
12.4 Respond to Sponsor, FAA, and FDOT Comments	R&A	0	2	1	8	6	0	17	\$	3,052			\$ 3,052
12.5 Prepare Final Airport Master Plan Update Report	R&A	1	2	1	8	22	0	34	\$	5,713	\$ 3,500		\$ 9,213
13 Project Administration and Coordination		0	0	42	12	28	0	82	\$	16,816	\$ -	\$ -	\$ 16,816
13.1 Grant Services	AID	0	0	0	0	0	0	0	\$	-			\$ -
13.2 Develop Monthly Status Reports	R&A	0	0	16	0	0	0	16	\$	4,160			\$ 4,160
13.3 Other Meetings (In Addition to those identified within the previous individual tasks)													
13.3.1 Kick-Off Meeting (1 in person meeting)	R&A/AID	0	0	8	0	8	0	16	\$	3,216			\$ 3,216
13.3.2 TCAA Staff Coordination Calls (12 virtual meetings)	R&A	0	0	12	0	12	0	24	\$	4,824			\$ 4,824
13.3.3 FAA Coordination Briefings (2 in person meetings)	R&A	0	0	4	8	8	0	20	\$	3,456			\$ 3,456
13.3.4 FDOT Coordination Briefing (1 virtual meeting)	R&A	0	0	2	4	0	0	6	\$	1,160			\$ 1,160
Grand Total		23	34	562	256	488	570	1,933	\$	344,943	\$ 10,850	\$ -	\$ 355,793

NOTE 1 - Billing rates shown here are specific to the staffing plan and specific individuals proposed for this assignment and are lower than the standard hourly rate for each of these labor categories. As such, these rates reflect built up rates utilizing CY 2020 audited overhead rate and a varying profit margin not exceeding 10 percent.

APPENDIX B AMERICAN INFRASTRUCTURE DEVELOPMENT, INC. FEE PROPOSAL

Arthur Dunn Airpark (X21)
Airport Master Plan Update
Labor/Fee Estimate Summary - American Infrastructure Development, Inc.

LEGEND

These tasks include elements that are applicable to the TDX, COI, and X21 Airport Master Plan Updates. The total costs for these tasks have been spread across the three Airport Master Plans. The hours and expenses on this Labor/Fee Estimate Summary do not reflect task totals, only the portion allocated to this Airport Master Plan.

BILLING RATE: \$ 186.00 \$ 162.00 \$ 133.00 \$ 95.00 \$ 79.00

			LABOR ESTIMATE (HOURS)					FEE ESTIMATE (\$)					
							Projects Coordinator				Sub - consultants Expenses		
Task Number and Description			Responsibility	Project Manager	Senior Engineer	Engineer/Planner	Designer		Total	Labor	Expenses	Total	
1A	Inventory of Existing Conditions			6	10	146	58	8	228	\$ 28,296	\$ 800	\$ -	\$ 29,096
	1A.1	Background, Airport History, and Aeronautical Role	AID/R&A	0	0	8	6	0	14	\$ 1,634			\$ 1,634
	1A.2 Inventory of Airport Physical Facilities												
	1A.2.1	Airfield	AID/R&A	0	0	8	8	0	16	\$ 1,824			\$ 1,824
	1A.2.2	Fixed Base Operator/General Aviation Facilities	AID/R&A	0	0	6	4	0	10	\$ 1,178			\$ 1,178
	1A.2.3	Support Facilities	AID/R&A	0	0	6	4	0	10	\$ 1,178			\$ 1,178
	1A.2.4	Non-Aeronautical Facilities	AID/R&A	0	0	4	0	0	4	\$ 532			\$ 532
	1A.2.5	Facilities Condition and Age Estimation	AID/R&A	0	0	6	0	0	6	\$ 798			\$ 798
	1A.3	Airspace Data	AID/R&A	0	0	8	0	0	8	\$ 1,064			\$ 1,064
	1A.4	Meteorological Conditions	AID/R&A	0	0	8	4	0	12	\$ 1,444			\$ 1,444
	1A.5 Land Use												
	1A.5.1	On-Airport	AID/R&A	0	0	8	6	0	14	\$ 1,634			\$ 1,634
	1A.5.2	Off-Airport	AID/R&A	0	0	6	4	0	10	\$ 1,178			\$ 1,178
	1A.6	Utilities	AID/R&A	0	10	30	6	0	46	\$ 6,180	\$ 400		\$ 6,580
	1A.10	Prepare Draft Working Paper	AID/R&A	6	0	32	16	8	62	\$ 7,524			\$ 7,524
	1A.11	Meetings (1 in person meeting)	AID/R&A	0	0	16	0	0	16	\$ 2,128	\$ 400		\$ 2,528
1C	Visioning Session with TCAA Board			1	0	0	0	0	1	\$ 186	\$ 90	\$ -	\$ 276
	1C.1	Visioning Session (1 in person meeting)	R&A/AID	1	0	0	0	0	1	\$ 186	\$ 90		\$ 276
1D	Strengths and Opportunities Assessment			1	0	0	0	0	1	\$ 186	\$ 90	\$ -	\$ 276
	1D.2	Meetings (1 in person meeting, 1 virtual meeting)	R&A/AID	1	0	0	0	0	1	\$ 186	\$ 90		\$ 276
1E	Stakeholder and Public Involvement			0	0	0	0	0	0	\$ -	\$ -	\$ -	\$ -
	1E.1 Technical Advisory Panel (3 in person meetings)												
	1E.1.2	Attend and Moderate Technical Advisory Panel Briefings	R&A/AID	0	0	0	0	0	0	\$ -	\$ -		\$ -
	1E.2 Citizens Advisory Panel (3 in person meetings)												
	1E.2.2	Attend and Moderate Citizens Advisory Panel Briefings	R&A/AID	0	0	0	0	0	0	\$ -	\$ -		\$ -
	1E.3 Titusville-Cocoa Airport Authority Workshops (2 in person meetings)												
	1E.3.2	Conduct Workshops	R&A/AID	0	0	0	0	0	0	\$ -	\$ -		\$ -
	1E.5	Public Workshops (2 in person meetings)											
	1E.5.2	Attend Public Workshops	R&A/AID	0	0	0	0	0	0	\$ -	\$ -		\$ -
5	Formulate Alternatives			8	20	40	0	0	68	\$ 10,048	\$ -	\$ -	\$ 10,048
	5.6	Develop Rough Order of Magnitude Cost Estimates	AID/R&A	8	20	40	0	0	68	\$ 10,048			\$ 10,048
10	Airport Layout Plan Set			0	0	0	0	0	0	\$ -	\$ -	\$ -	\$ -
	10.8	Existing Land Use Drawing	AID/R&A	0	0	0	0	0	0	\$ -			\$ -
	10.9	Proposed Land Use Drawing	AID/R&A	0	0	0	0	0	0	\$ -			\$ -
11	Exhibit 'A' Airport Property Inventory Map			2	0	108	60	0	170	\$ 20,436	\$ -	\$ 36,850	\$ 57,286
	11.1	Title Work	AID	0	0	16	0	0	16	\$ 2,128		\$ 36,850	\$ 38,978
	11.2	Boundary Survey	AID/B&P	0	0	8	0	0	8	\$ 1,064			\$ 1,064
	11.3	Exhibit 'A' Airport Property Inventory Map	AID/B&P/R&A	2	0	64	60	0	126	\$ 14,584			\$ 14,584
	11.4	Prepare Checklist According to SOP 3.00	AID	0	0	8	0	0	8	\$ 1,064			\$ 1,064
	11.5	Meetings (6 virtual meetings)	AID/B&P/R&A	0	0	12	0	0	12	\$ 1,596			\$ 1,596
13	Project Administration and Coordination			32	0	0	0	152	184	\$ 17,960	\$ -	\$ -	\$ 17,960
	13.1	Grant Services	AID	24	0	0	0	148	172	\$ 16,156			\$ 16,156
	13.3 Other Meetings (In Addition to those identified within the previous individual tasks)												
	13.3.1	Kick-Off Meeting (1 in person meeting)	R&A/AID	8	0	0	0	4	12	\$ 1,804			\$ 1,804
Grand Total				50	30	294	118	160	652	\$ 77,112	\$ 980	\$ 36,850	\$ 114,942

APPENDIX C BROWN & PHILLIPS, INC. FEE PROPOSAL

Arthur Dunn Airpark (X21)
Airport Master Plan Update
Labor/Fee Estimate Summary - Brown & Phillips, Inc.

See Attached Proposal for Additional Details

BILLING RATE: \$ 134.00 \$ 135.00 \$ 83.00 \$ 83.00

		LABOR ESTIMATE (HOURS)					FEE ESTIMATE (\$)				
Task Number and Description		Responsibility	PLS	2-Man Crew	CAD Technician	Survey Technician	Total	Labor	Expenses	Sub - consultants Expenses	Total
2	Aerial Surveying and Mapping		25	122	20	81	248	\$ 28,203	\$ 2,916	\$ -	\$ 31,119
2.8	Field-Survey Services										
2.8.1	Establish Geodetic Control / Validate Existing PACs / SACs	B&P/R&A	15	78	0	45	138	\$ 16,275	\$ 2,916		\$ 19,191
2.8.2	Runway Surveys	B&P/R&A	9	36	20	29	94	\$ 10,133			\$ 10,133
2.8.3	NAVAID Surveys	B&P/R&A	1	8	0	7	16	\$ 1,795			\$ 1,795
11	Exhibit 'A' Airport Property Inventory Map		28	32	12	94	166	\$ 16,870	\$ 972	\$ -	\$ 17,842
11.2	Boundary Survey	AID/B&P	4	32	0	30	66	\$ 7,346	\$ 972		\$ 8,318
11.3	Exhibit 'A' Airport Property Inventory Map	AID/B&P/R&A	18	0	12	62	92	\$ 8,554			\$ 8,554
11.5	Meetings (6 virtual meetings)	AID/B&P/R&A	6	0	0	2	8	\$ 970			\$ 970
Grand Total			53	154	32	175	414	\$ 45,073	\$ 3,888	\$ -	\$ 48,961

May 5, 2022

Ms. Timeka Carter
American Infrastructure Development, Inc.
1645 Palm Beach Lakes Boulevard, Suite 1200
West Palm Beach, FL 33401

**Re: Titusville-Cocoa Airport Authority (TCAA) Master Plan Planning Services
Arthur Dunn Air Park (X21) - Ground Control Survey and Airport Layout Plan**

Dear Timeka:

Thank you for the opportunity to provide you with the following services for the subject site. This proposal is based on documentation and information provided by your office. The scope of services is as follows:

SCOPE OF SERVICES

I. TASK 8 FIELD SURVEY SERVICES – GROUND CONTROL SURVEY

Utilizing information from Martinez Geospatial, Inc. (MTZ), we will complete onsite ground control surveys to fulfill the data-collection requirements for updating a paper Airport Layout Plan (ALP). We will collect field survey data in accordance with FAA AC Circulars 150/5300-16B (16B), 150/5300-17C (17C), and 150/5300-18B (18B), as applicable and will include the following from MTZ Scope and Fee Proposal:

Establish Geodetic Control / Temporary Control (Field-Survey)

X21 does not have PACs & SACs monuments on the airfield. Therefore, as required by FAA, at least two Temporary Control Marks will be established on the airfield through NGS OPUS. Two independent 4-hour sessions are required per survey mark. Once established, the Temporary Control Marks will serve as the basis of the geodetic control network for the survey project.

Survey Imagery Photo Control (Field-Survey)

Photo-identifiable control points will be selected/set and surveyed for use as ground control for aero-triangulation of the new aerial imagery. Imagery control points will be spread throughout the aerial imagery project-area in a geometric pattern conducive to favorable aero triangulation results. Each imagery control point will be surveyed using RTK survey methods. Imagery Control will be surveyed (properly tied to NSRS) and documented in accordance with AC-150/5300-17C and FAA Airports-GIS requirements. Ground Control data and documentation will be submitted to MTZ for submittal to FAA Airports-GIS along with the Aerial Photography Acquisition Report. It is anticipated that approximately **24** imagery control points will be required. Per FAA requirements, in addition to the imagery control points, an additional **5** Independent Checkpoints will be surveyed and processed through NGS OPUS.

Runway Surveys (Field-Survey)

Brown & Phillips will accomplish field-survey of both runways at X21 (4/22 & 15/33); survey tasks will include survey of runway-endpoints, displaced thresholds (RWY 4, 22, and 33) and runway-profiles. For each runway-endpoint/threshold a monument will be set (or recovered), surveyed, and documented in accordance with AC-150/5300-18B. Runway-centerline profiles will be surveyed utilizing mobile-RTK methodology; final profile data will be extracted at 50-foot stations for FAA Airports-GIS submission.

NAVAID Surveys (Field-Survey)

Brown & Phillips will accomplish field-survey of visual and electronic NAVAIDs serving the X21 airport. Each NAVAID will be surveyed and documented in accordance with AC-150/5300-18B. NAVAID survey data will be properly formatted by MTZ and reported in the FAA Airports-GIS deliverable and the CAD base-map deliverable. The NAVAID survey will include the following:

Airport Beacon	PAPI 15	PAPI 33
Windsocks	ASOS	

TASK 8 DELIVERABLES

As part of **X21 Master Plan Update**, Brown & Phillips will provide the following:

FIELD SURVEY SERVICES

- Topographic survey of runway profiles
- Drawing showing control found and utilized for the project
- FAA required field forms and photographs as needed

TASK 8 ITEMS TO BE PROVIDED BY AMERICAN INFRASTRUCTURE DEVELOPMENT (AID)

The following items will be provided to Brown & Phillips by AID:

- Any pertinent maps and plans to aid in this scope of work (PDF and CAD if possible)
- Rectified aerials (if available) of the airport for use as an underlay on the survey drawings
- MTZ will be responsible for coordinating and submitting AGIS deliverables to FAA

II. TASK 11 EXHIBIT 'A' AIRPORT PROPERTY INVENTORY MAP

Task 11.2 Boundary Survey

Brown & Phillips will perform a Boundary Survey of up to 12 parcels combined to form approximately 200± acres assumed to represent property owned by the TCAA, as depicted on the Airport Property Map dated August 2021. Additionally, a maximum of twelve (12) easements are

assumed to be owned by the TCAA. Title reports produced as part of subtask 11.2 will be reviewed to determine encumbrances reflected therein that should be reflected on the boundary survey of each property. Individual small parcels of land originally acquired for noise purposes will not be individually surveyed as part of this project. Property acquired since the completion of the 2007 map will be added to the property inventory.

Once the field data collection is completed and all field QA/QC checks have been made, all raw data files will be processed and subsequently imported into AutoCAD software for the creation of the final project drawings and reports. The final Boundary Survey deliverable will be compiled from all field data collected, a review of all title searches and documentation amassed from public records sources for each individual parcel boundary survey.

The field location of each parcel's boundary monumentation will be compared to the legal description of each parcel and the final location of each parcel boundary will be determined. No improvement locations will be obtained. All work will be performed in accordance with the standards of practice outlined in Chapter 5J-17 of the Florida Administrative Code, pursuant to Section 472.027, Florida Statutes.

Task 11.3 Exhibit 'A' Airport Property Inventory Map

This subtask includes the development of an Exhibit 'A' Airport Property Inventory Map. The deliverable will be prepared at a scale equal to that of the ALP and will depict the existing airport property boundary as well as proposed acquisition areas. The drawing will indicate in matrix form how, when, and from whom the various parcels were acquired. The data table will include (if available): number or letter and area of each parcel or easement, date property was acquired or disposed (recorded date), recorded document number (book/page), encumbrance (if applicable), Brevard County Tax ID, Federal Aid project number under which the property acquisition was reimbursed, type of acquisition (i.e. AIP-noise, AIP entitlement, surplus property, local purchase, local donation, condemnation, other), grantor of property, and acreage. The Exhibit 'A' Airport Property Inventory Map will also document existing easements within the Airport boundary.

The updating of the property map will conform with the guidelines discussed in FAA's Standard Operating Procedure (SOP 3.00) for FAA Review of Exhibit 'A' Airport property Inventory Maps (dated October 1, 2013). FAA SOP 2.00 also provides the same Airport Property Inventory Map/Exhibit A guidelines. To support the submittal of this updated planning product, the Ricondo Team will also review, complete, and submit the Exhibit 'A' Review Checklist that is provided in the FAA SOP 3.00.

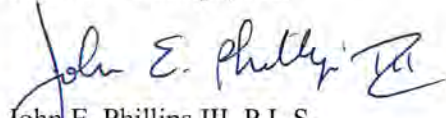
Task 11.6 Meetings

Brown & Phillips will attend up to six (6) virtual meetings as a part of this project.

III. CLOSURE

A drawing will be produced which will show all the features located. Horizontal & vertical accuracy will reflect conformance to FGDC Geospatial Positioning Accuracy Standards. The survey will be performed at two tenths of a foot contour interval and the final drawings will be provided, signed & sealed hard copy plans, one (1) electronic file in AutoCAD format and one (1) copy of survey field notes and calculations. Any additional work will be done on an hourly basis as approved by you. We will perform the scope of services for a **fee of \$48,961.00** (see Attachment 'A' for an hourly breakdown). Please do not hesitate to call me with any questions you might have regarding this proposal. We look forward to working with you on this project.

Brown & Phillips, Inc.


John E. Phillips III, P.L.S.
Principal

Attachments

JEP/mb

This Proposal accepted this ____ day of ____, 2022

By: _____
American Infrastructure Development

Print Name: _____

Title: _____

ATTACHMENT 'A' (1 OF 2)

TCAA Master Plan Planning Services
Arthur Dunn Air Park (X21)

Type of Survey: Ground Control & Topographic
Size: 24 ID's, 2 Runways
Date: May 5, 2022

TASK 2.8 - Field Surveying Services	SURVEY CREW	CADD TECH	SURVEY TECH	PLS	COMMENTS
Task 2.8.1 Establish Geodetic Control / Temporary Control					
Planning/Control Identification			20	8	Reconnaissance, planning and set-up
Find and Establish Control	30		10	4	Image control checkpoints & recon.
Collection of NAVAIDS	12		5	1	Airport geodetic control validation and prepare reports
Photo ID's	36		10	2	Locate photo ID points (24± points) 5 independent checkpoints
Total Hours:	78	0	45	15	
Rate/Hour	\$135.00	\$83.00	\$83.00	\$134.00	
Subtotal:	\$10,530.00	\$0.00	\$3,735.00	\$2,010.00	
Total Labor Cost:					\$16,275.00

TASK 2.8 - Field Surveying Services	SURVEY CREW	CADD TECH	SURVEY TECH	PLS	COMMENTS
Task 2.8.2 Runway Surveys					
Collect Runway Ends & displaced thresholds (RWY 4, 22, 15, 33)	12		3	1	Collect horizontal information for both runways (4/22 & 15/33)
Vertical Project Network Control	4		1		Onsite control for profile - check published vertical
Vertical Profile of Runway	10		2		Runway centerline and 50-foot stations
Collect signage and markings not collected from imagery	10		3		
Prepare Deliverables		20	20	8	Prepare reports, compile data, prepare drawings
Total Hours:	36	20	29	9	
Rate/Hour	\$135.00	\$83.00	\$83.00	\$134.00	
Subtotal:	\$4,860.00	\$1,660.00	\$2,407.00	\$1,206.00	
Total Labor Cost:					\$10,133.00

ATTACHMENT 'A' (2 OF 2)

TCAA Master Plan Planning Services
Arthur Dunn Air Park (X21)

TASK 2.8 - Field Surveying Services	SURVEY CREW	CADD TECH	SURVEY TECH	PLS	COMMENTS
Task 2.8.3 NAVAID Surveys					
Survey visual and electronic NAVAIDs	8		1		Survey and document
Prepare Deliverables			6	1	Prepare reports, compile data, prepare drawings
Total Hours:	8	0	7	1	
Rate/Hour	\$135.00	\$83.00	\$83.00	\$134.00	
Subtotal:	\$1,080.00	\$0.00	\$581.00	\$134.00	
Total Labor Cost:					\$1,795.00

Other Direct Costs:	quantity	unit	cost/unit	total	
Per Diem meals for 2	9	days	\$132.00		\$1,188.00
Per Diem lodging for 2	9	days	\$192.00		\$1,728.00
Other					
Total Other Direct Costs:					\$2,916.00
TOTAL PRICE FOR TASK 2:					\$31,119.00

TASK - 11 Exhibit 'A' Airport Property Inventory Map	SURVEY CREW	CADD TECH	SURVEY TECH	PLS	COMMENTS
Boundary Survey	32		30	4	Up to 12 parcels - 200± acres
Exhibit 'A' Airport Property Inventory Map		10	50	16	
Meetings (6 virtual meetings)			2	6	
Address comments		2	12	2	
Total Hours:	32	12	94	28	
Rate/Hour	\$135.00	\$83.00	\$83.00	\$134.00	
Subtotal:	\$4,320.00	\$996.00	\$7,802.00	\$3,752.00	
Total Labor Cost:					\$16,870.00

Other Direct Costs:	quantity	unit	cost/unit	total	
Per Diem meals for 2	3	days	\$132.00		\$396.00
Per Diem lodging for 2	3	days	\$192.00		\$576.00
Other					
Total Other Direct Costs:					\$972.00
TOTAL PRICE FOR TASK 11:					\$17,842.00
GRAND TOTAL:					\$48,961.00

APPENDIX D MARTINEZ GEOSPATIAL FEE PROPOSAL

See Attached Proposal for Additional Details

BILLING RATE: \$ - \$ - \$ -

				LABOR ESTIMATE (HOURS)				FEE ESTIMATE (\$)				
Task Number and Description				Responsibility	Project Manager	Photogrammetrist	CAD Technician	Total	Labor	Expenses	Sub - consultants Expenses	Total
2	Aerial Surveying and Mapping				0	0	0	0	\$ -	\$ -	\$ -	\$ 69,576.89
2.1	Project Planning / FAA Airports-GIS Coordination / Field-Survey Consultation			MTZ/R&A	0	0	0	0	\$ -			\$ 8,615.36
2.2	Imagery Acquisition (Flight Mission)			MTZ	0	0	0	0	\$ -			\$ 4,000.00
2.3	Aero-Triangulation			MTZ	0	0	0	0	\$ -			\$ 4,812.31
2.4	Orthophoto Production			MTZ	0	0	0	0	\$ -			\$ 8,636.21
2.5	Planimetric/Topographic Mapping			MTZ/R&A	0	0	0	0	\$ -			\$ 14,485.47
2.6	Airspace Analysis/Obstruction Survey			MTZ/R&A	0	0	0	0	\$ -			\$ 19,725.20
2.7	Mapping Edit and GIS Formatting/FAA Compliance			MTZ	0	0	0	0	\$ -			\$ 9,302.34
Grand Total					0	0	0	0	\$ -	\$ -	\$ -	\$ 69,576.89



A GEOSPATIAL SERVICE PROVIDER

Scope and Fee Proposal

Photogrammetry & Airports-GIS Services

Arthur Dunn Air Park (X21)

05/05/2022

2915 Waters Road Suite 100 Eagan, Minnesota 55121

Tel: 651-686-8424 • www.mtzgeo.com

PROJECT SUMMARY

CLIENT	Ricondo
CLIENT CONTACT	Brad Weston
CLIENT ADDRESS	200 E Robinson Street, Suite 300 Orlando, FL 32801
PROJECT LOCATION	Arthur Dunn Air Park (X21)

Martinez Geospatial, Inc. (MTZ) will provide **Ricondo** with Photogrammetry and Airports-GIS services in support of a **Master Plan/Airport Layout Plan** at **Arthur Dunn Air Park (X21)**.

This scope includes tasks required to comply with FAA Airports-GIS program standards. All survey and photogrammetry work will be accomplished in accordance with the following Advisory Circulars:

AC-150/5300-16B (16B)

AC-150/5300-17C (17C)

AC-150/5300-18B (18B)

The FAA Airports-GIS objective for this project is to collect and submit *Safety-Critical* data for the airport. Furthermore, base-mapping (planimetric & topographic data) collected in support of the ALP will be formatted and submitted to FAA Airports-GIS. Specifically, acquisition of data will include an Obstruction Survey/Airport Airspace Analysis, NAVAID inventory & survey, Runway Ends & Profiles survey, and collection (through remote-sensing) of planimetric & topographic data.

MTZ will fulfill the data collection, formatting, and delivery requirements of the FAA Airports-GIS program. In general, MTZ's approach to fulfilling the GIS requirements will be accomplishing those required tasks as outlined in **Table 2-1 (Survey Requirements Matrix)** of **18B, Column "Airport Layout Plan."**

PROJECT SPECIFICATIONS

STATE	FLORIDA
COUNTY	BREVARD
PROJECT TYPE	AVIATION (AIRPORTS-GIS INCLUDED)
COORDINATE SYSTEM	FLORIDA STATE PLANE – EAST ZONE
HORIZONTAL DATUM	NAD83
VERTICAL DATUM	NAVD88 (GEOID18)
FIELD-SURVEY PROVIDED BY	BROWN & PHILLIPS, INC.
MAPPING SCALE	1"=100' & 2' CONTOURS
MAPPING FORMATS REQUIRED	STANDARD CAD w/ DTM and AIRPORTS-GIS
ORTHO RES & PHOTO FORMAT	0.5' GSD, TIF & SID FORMAT

PROJECT AREA DEFINITION

The total project area consists of three components:

AREA A	Planimetric & Topographic Mapping Limit - This area defines the limit for the compilation of planimetric & topographic base-mapping (approximately 183 acres).
AREA B	Part 77/OCS Airspace Analysis Limits - Horizontal Limits of the applicable Obstruction Identification Surfaces (OIS) as defined by FAR Part 77 and AC-150/5300-13B.
AREA C	Airports-GIS Airspace Analysis Limits - Horizontal Limits of the applicable Obstruction Identification Surfaces (OIS) as defined in AC-150/5300-18B.

PROJECT TASKS

Project Planning/Project Management/FAA Airports-GIS Coordination/Field-Survey Coordination

MTZ will assist Ricoondo to develop, submit, and gain approval of the "Statement of Work" for the project through the ADO and FAA Airports-GIS. MTZ will assemble, submit, and gain approval of the AP Acquisition Report through FAA Airports-GIS. MTZ will also coordinate with the field-surveyor to ensure all documentation required by AGIS, related to field-survey, is completed correctly. MTZ will also be available to assist/consult the surveyor in interpretation and application of FAA requirements to field-survey work.

Aerial Imagery Acquisition

New color aerial imagery will be captured for all areas outlined in the **PROJECT AREA DEFINITION** section of this scope utilizing a digital photogrammetric camera. The aerial imagery acquisition flight mission will be executed in accordance with all guidelines and specifications within FAA AC 150/5300-17C.

The aerial imagery acquisition flight mission will consist of a single "block" of imagery, as specified below:

IMAGERY RESOLUTION	PURPOSE/USE
10cm	The coverage limit for this imagery is the horizontal extents of AREA A, AREA B & AREA C . This imagery will be utilized for all photogrammetric data collection, including planimetric/topographic mapping and obstruction surveys/airspace analysis. Ortho-imagery will also be generated for this area at a resolution of 0.50' GSD.

Upon completion of the flight mission, the imagery will be reviewed through in-house Quality Assurance procedures for photogrammetric acceptability and compliance with AC 150/5300-17C requirements.

Establish Geodetic Control / Temporary Control (Field-Survey, Brown & Phillips)

X21 does not have PACS & SACS monuments on the airfield. Therefore, as required by FAA, at least two Temporary Control Marks will be established on the airfield through NGS OPUS. Two independent 4-hour sessions are required per survey mark. Once established, the Temporary Control Marks will serve as the basis of the geodetic control network for the survey project.

Survey Imagery Photo Control (Field-Survey, Brown & Phillips)

Photo-identifiable control points will be selected/set and surveyed for use as ground control for aero-triangulation of the new aerial imagery. Imagery control points will be spread throughout the aerial imagery project-area in a geometric pattern conducive to favorable aerotriangulation results. Each imagery control point will be surveyed using RTK survey methods. Imagery Control will be surveyed (properly tied to NSRS) and documented in accordance with AC-150/5300-17C and FAA Airports-GIS requirements. Ground Control data and documentation will be submitted to FAA Airports-GIS along with the Aerial Photography Acquisition Report. It is anticipated that **24** imagery control points will be required. Per FAA requirements, in addition to the imagery control points, an additional **5** Independent Checkpoints will be surveyed and processed through NGS OPUS.

Aero Triangulation

The newly acquired digital aerial imagery will be imported onto a digital photogrammetric workstation where it will be oriented with field-surveyed ground control. This procedure will establish both horizontal and vertical control for orienting individual photogrammetric models. This orientation will be accomplished using Soft Copy Aerial Triangulation methods.

Create Digital Ortho Imagery

Digital orthophotos will be produced to meet the needs of Ricondo and the Airport as well as to comply with the requirements of the FAA Airports-GIS program and AC 150/5300-17C. One set of orthophotos will be produced. Orthophotos will cover the following defined areas and meet the following specifications:

RESOLUTION	COVERAGE LIMIT
0.50' GSD	AREA C (see attached exhibit)

Runway Surveys (Field-Survey, Brown & Phillips)

Field Surveyors will accomplish survey of the runways at X21 (4/22 & 15/33); survey tasks will include survey of runway-end-points, displaced thresholds (RWY 4, 22, and 33) and runway-profiles. For each runway-end-point/threshold a monument will be set, surveyed, and documented in accordance with AC-150/5300-18B. Runway-centerline profiles will be surveyed utilizing mobile-RTK methodology; final profile data will be extracted at 50-foot stations for FAA Airports-GIS submission. Runway survey data will be utilized for the Obstruction Surveys/Airport Airspace Analysis task. Furthermore, MTZ will identify Airport Reference Point, Airport Elevation, High & Low Elevations of each Runway, and Touchdown Zone Elevations for each runway utilizing the newly surveyed Runway Data. Runway survey data will also be properly formatted by MTZ and reported in both the FAA Airports-GIS deliverable and the CAD base-map deliverable.

NAVAID Surveys (Field-Survey, Brown & Phillips)

Surveyors will accomplish field-survey of visual and electronic NAVAIDs serving the X21 airport. Each NAVAID will be surveyed and documented in accordance with AC-150/5300-18B. NAVAID survey data will be properly formatted by MTZ and reported in both the FAA Airports-GIS deliverable and the CAD base-map deliverable. The NAVAID Survey will include the following:

<i>Airport Beacon</i>	<i>PAPI 15</i>	<i>PAPI 33</i>
<i>Windssocks</i>	<i>ASOS</i>	

Airport Airspace Analysis/Obstruction Surveys

18B/AGIS

Airport Airspace Analysis data collection will be completed for both runways at X21. Obstacle data collection/submission will be accomplished in accordance with all relevant sections of AC-150/5300-18B, Section 2.7.1 and the FAA Airport Airspace Analysis Checklist. Airport Airspace Analysis will be accomplished to the following standards:

RUNWAY	AGIS ANALYSIS TYPE
4/22	Runways-With-Vertical-Guidance
15/33	Runways-With-Vertical-Guidance

Formatting of final reported 18B/AGIS obstacles will adhere to the specifications of AC 150/5300-18B, Chapter 5 *Airport Data Features*.

Part 77/Obstacle Clearance Surface (OCS)

An FAR Part 77 and an OCS Obstruction Survey will be performed for all runway ends. Utilizing the digital 3D stereo imagery, the prescribed Part 77 & OCS Obstruction-Identification-Surfaces will be examined and analyzed to identify natural and manmade objects penetrating the surfaces. OCS Surfaces will be based on the requirements of AC-150/5300-13B (Tables 3-2, 3-3, 3-4, and 3-5).

The Part 77 Obstruction Survey will meet the following specifications:

RUNWAY	PART 77 ANALYSIS TYPE
4	Visual-Utility (AV)
22	Visual-Utility (AV)
15	Visual-Utility (AV)
33	Visual-Utility (AV)

The OCS Obstruction Survey will meet the following specifications (OCS Numbers are taken from AC-13B, Tables 3-2, 3-3, 3-4, and 3-5).

RUNWAY	OCS ANALYSIS TYPE
4	OCS 4 (for IFR Circling, $\geq 3/4$ sm Visibility Minimums)
22	OCS 4 (for IFR Circling, $\geq 3/4$ sm Visibility Minimums)
15	OCS 4 (for IFR Circling, $\geq 3/4$ sm Visibility Minimums)
33	OCS 4 (for IFR Circling, $\geq 3/4$ sm Visibility Minimums)

Part 77/OCS Collection Criteria

The obstruction-identification-surfaces, defined in the previous section, will be digitally referenced with the 3D Stereo Imagery. Utilizing the 3D imagery, trained technicians will visually examine all surfaces and collect X-Y-Z point data for objects meeting collection criteria. Collected data will then be mathematically analyzed against the surfaces using custom processes to produce a final dataset. Multiple Quality-Assurance processes are performed for obstruction data through the project life cycle to ensure accuracy and completeness. Data will be collected to fulfill the following criteria:

- 1) A single X-Y-Z point will be collected / analyzed for any manmade or natural object penetrating a surface. The point will be placed on the highest point of the object. The X-Y location will correspond to the horizontal position of the highest portion of the object, not necessarily the geometric center or middle of the object.
- 2) Occasionally with Obstruction Surveys, large group of trees or terrain (obstruction area) are found to penetrate a surface and it is not feasible or possible to collect each individual penetration. In these cases, the obstruction area will be outlined with a bounding polygon in order to represent the horizontal extents of the area. A grid will then be overlaid on the obstructing area. Within each grid sector, the highest object will be collected. Within the primary surface, the transitional surface, and the approach surface, 100-foot grid spacing will be used. 200-foot grid spacing will also be used within the horizontal surface. Within the conical surface, 500-foot grid spacing will be used.

Supplemental Obstacle Collection

Within the first 5,000 feet of the Departure Surface (also applied to visual runways), MTZ will collect significant manmade and natural objects with no exemptions based on negative penetration value. For manmade objects, all buildings, utility poles, antennas, towers, and prominent objects will be collected (small objects, such as mailboxes, posts, and utility boxes will be ignored). For roadways (including highways) and railroads, the proper Part 77 offset will be applied according to the type of vehicular traverse way (official Vehicle Service Roads will be included and NAVAID Service Roads will be excluded). For vegetation, significant singular trees will be collected to the extent possible/feasible. In large areas of dense vegetation, a bounding polygon will be drawn to show the extents of the area. A 100-foot grid will be applied and the highest vegetation point within each grid-sector will be collected.

Deliverable Format for Part 77 and OCS Obstacle Data

DELIVERABLE	DESCRIPTION
Shapefile and CAD File	These files will contain the following pieces of data: <ol style="list-style-type: none"> 1) Obstruction Surface Linework 2) Obstruction X-Y-Z Points 3) Obstruction Area Polygon (if applicable) 4) Obstruction Area Grid (if applicable)
Attributes will be included in the Shapefile as Object Data. For the CAD version, attributes will be provided in Spreadsheet Format and can be cross-referenced with the CAD file by Object Number.	Shapefiles will contain the following pieces of object data: <ul style="list-style-type: none"> • Object type • Northing / Easting / Elevation (MSL) • Latitude/Longitude • AGL Height (as able, for penetrating objects only) • Height-Above-Runway-End • Height-Above-Touchdown-Zone • Height-Above-Airport-Elevation • Distance-to-Runway-End

	<ul style="list-style-type: none"> Distance-From-Runway-Centerline (and direction) Penetration Value (if applicable) Surface Affected & Slope (if applicable)
--	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Planimetric & Topographic Mapping Compilation

Utilizing the aerotriangulated digital imagery, photographic stereo pairs will be oriented and compiled on digital photogrammetric workstations within **AREA A**.

Mapping data will be compiled meeting the following specifications:

PLANIMETRIC DATA SCALE	1"=100' SCALE (CLASS II STANDARDS)
TOPOGRAPHIC DATA SCALE	2' CONTOUR INTERVAL (CLASS II STANDARDS)

MAPPING DELIVERABLE	FORMAT
PLANIMETRIC FILE	AUTOCAD (Other formats available upon request)
CONTOUR FILE	AUTOCAD (Other formats available upon request)
DIGITAL-TERRAIN-MODEL FILE	AUTOCAD (Other formats available upon request)

Planimetric Features will include (but are not limited to):

- Building Outlines
- Airfield Pavement (Aprons, Taxiways, Runways)
- Airfield Paint Markings
- Airfield Signs
- Airfield Lights
- Roadways/Railways/Bridges
- Sidewalks
- Towers/Antennas
- Utilities (Above-Ground & Identifiable in Imagery)

Mapping Edit and GIS Formatting

In addition to generating mapping data in CAD formats, all collected data will be edited and formatted in the appropriate AGIS format. In terms of GIS-attributes, MTZ will be responsible for populating all geospatial-related and/or critical attributes required for upload. In general terms, the final AGIS file created by MTZ will include both Safety-Critical and Non-Safety-Critical Data. This includes the following:

- 1) **Safety-Critical**
 - a. Airport Airspace Analysis Data (Obstacles)
 - b. Runway Survey Data
 - c. NAVAID Survey Data
- 2) **Non-Safety-Critical**
 - a. Planimetric Data
 - b. Topographic Data

Final GIS data will meet the following specifications:

GIS DATA-MODEL UTILIZED	FAA Airports-GIS (<i>AC 150/5300-18B, Chapter 5</i>)
GIS DELIVERY FORMAT	ArcGIS Shapefile

Airports-GIS Data Submission and Final Reporting

All data will be formatted into compliant Airports-GIS format and prepared for submission. Prior to submission, the survey-files will be tested using the FAA's survey-file-test tool in order to ensure acceptability. A "Final Report" will be generated in accordance with Advisory Circular 150/5300-18B and submitted with the final project file. MTZ will coordinate with Ricondo prior to uploading the final submission to AGIS. Following submission, MTZ will periodically follow up with Ricondo until the final submission receives approval by NGS. Project close-out will also consist of ensuring receipt and acceptance of the obstruction survey and digital mapping data by RICONDO, the FAA and NGS.

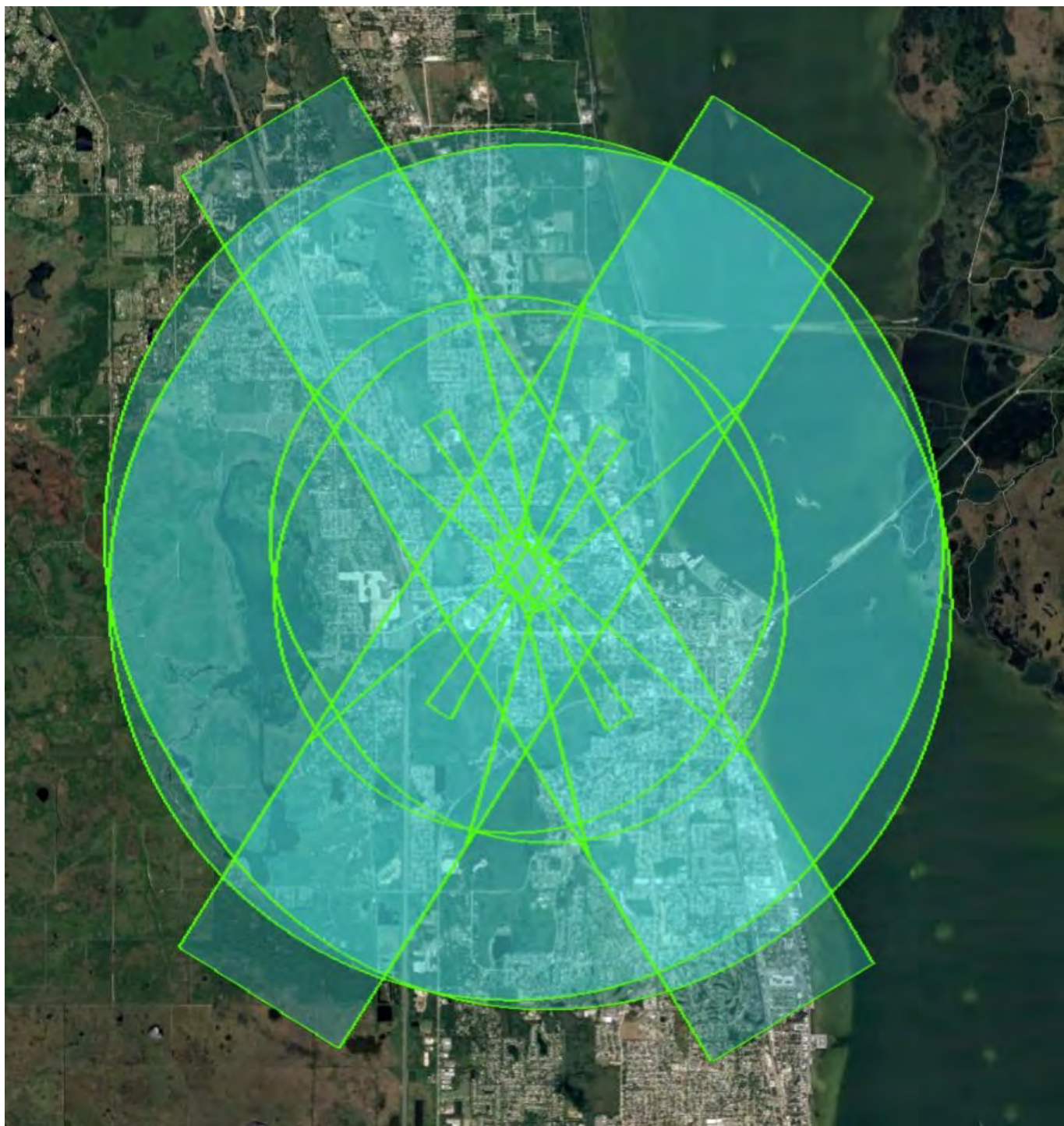
DELIVERABLE SUMMARY
1) Statement of Work Report (for FAA Airports-GIS approval)
2) Aerial Photography Acquisition Report (for FAA Airports-GIS approval)
3) Part 77 & Obstacle-Clearance-Surface Obstruction/Penetration Data
4) Airfield Base-map (Planimetric & Topographic Mapping Data)
5) Supplemental Obstacle Data
6) Digital Ortho Imagery of AREA C (0.50' Resolution)
7) Comprehensive FAA Airports-GIS Deliverable, consisting of: A) Safety Critical Data (Runway, NAVAID, and Airport Airspace Analysis Data) B) Non-Safety Critical Data (Planimetric & Topographic Mapping)
8) Final Report (for FAA Airports-GIS approval)

FEE SCHEDULE

It is understood that compensation for this project will be on a **LUMP SUM** basis. MTZ will invoice Ricondo monthly based on percent-complete of each category below. The following is a proposed fee schedule based on major production processes/work category:

TASK	FEE
Project Planning/Project Management/FAA Airports-GIS Coordination/Field-Survey Consultation	\$ 5,285.04
Production Manager	\$ 3,330.32
Imagery Acquisition (Flight Mission)	\$ 4,000.00
Aerotriangulation	\$ 4,812.31
Orthophoto Production (0.50' GSD)	\$ 8,636.21
Planimetric/Topographic Mapping	\$ 14,485.47
Airspace Analysis/Obstruction Survey (Airports-GIS, Part 77, OCS, & Supplemental Obstacle Data)	\$ 19,725.20
Mapping Edit, GIS Formatting / FAA Compliance (Mapping & Obstruction Survey)	\$ 9,302.34
Field-Survey Services	Not Included
TOTAL	\$ 69,576.89

Airports-GIS Airspace Analysis



Green Polygons - 18B/Airports-GIS Obstruction Identification Surfaces
Cyan Shaded Area - 0.50' GSD Ortho Imagery Limit



MTZ | Martinez Geospatial
2915 Waters Road Suite 100
Eagan, Minnesota 55121
Tel: 651.686.8424 Fax: 651.686.8389



Planimetric & Topographic Mapping



Red Polygon - Planimetric & Topographic Mapping Limit



MTZ | Martinez Geospatial
2915 Waters Road Suite 100
Eagan, Minnesota 55121
Tel: 651.686.8424 Fax: 651.686.8389



APPENDIX E THE QUOTIENT GROUP, INC. FEE PROPOSAL

Arthur Dunn Airpark (X21)
 Airport Master Plan Update
 Labor/Fee Estimate Summary - The Quotient Group

BILLING RATE:	\$	-	\$	125.00
---------------	----	---	----	--------

					LABOR ESTIMATE (HOURS)			FEE ESTIMATE (\$)		
Task Number and Description		Responsibility	Project Manager	Graphic Designer	Total	Labor	Expenses	Sub - consultants Expenses	Total	
1A	Inventory of Existing Conditions		0	32	32	\$ 4,000	\$ -	\$ -	\$ 4,000	
	1A.9 Tenant Surveys	TQG/R&A	0	32	32	\$ 4,000			\$ 4,000	
1E	Stakeholder and Public Involvement		0	64	64	\$ 8,000	\$ -	\$ -	\$ 8,000	
	1E.3 Titusville-Cocoa Airport Authority Workshops (2 in person meetings)									
	1E.3.1 Prepare Workshop Materials	R&A/TQG	0	32	32	\$ 4,000			\$ 4,000	
	1E.5 Public Workshops (2 in person meetings)									
	1E.5.1 Prepare Workshop Materials	R&A/TQG	0	32	32	\$ 4,000			\$ 4,000	
12	Documentation		0	48	48	\$ 6,000	\$ -	\$ -	\$ 6,000	
	12.1 Develop PowerPoint Template	TQG	0	8	8	\$ 1,000			\$ 1,000	
	12.2 Executive Summary									
	12.2.1 Prepare Executive Summary Brochure	R&A/TQG	0	40	40	\$ 5,000			\$ 5,000	
Grand Total			0	144	144	\$ 18,000	\$ -	\$ -	\$ 18,000	

**MASTER SERVICE AGREEMENT
SPACEPORT MASTER PLAN
SPACE COAST SPACEPORT**

THIS MASTER SERVICE AGREEMENT (the “Agreement”), made and entered into on _____ 2022, by and between the TITUSVILLE-COCOA AIRPORT AUTHORITY (the “Authority”) and RICONDO & ASSOCIATES, INC. (the “Consultant”).

WITNESSETH:

WHEREAS, the Authority as a dependent special district pursuant to section 189.429, Florida Statutes, is authorized to contract for technical services that may be required; and

WHEREAS, the Authority desires to develop its spaceport master plan (the “Master Plan”) for the Space Coast Spaceport (hereinafter referred to the “Project”); and

WHEREAS, the Consultant is willing and able to perform the services to be performed under this Agreement and in relation to the Project upon the terms and conditions set forth herein; and

WHEREAS, a Request for Qualifications for Master Planning Services, RFQ 2022-001 (the “RFQ”), was issued on March 24, 2022 and the Consultant provided the requested Statement of Qualifications (the “SOQ”) and was selected among all of the SOQs received by Authority as the best qualified and capable respondent to fulfill the tasks in that underlying RFQ’s scope of services; and

NOW, THEREFORE, in consideration of the premises and of the mutual covenants hereinafter contained, it is agreed by and between the parties as follows:

ARTICLE I - SCOPE OF SERVICES

1. The Consultant agrees to develop the Master Plan for Space Coast Spaceport in accordance with the specified Tasks and Scope of Work listed in Attachment A – Scope of Services appended hereto and incorporated herein by reference, and to perform other services that may be directed to the Consultant by Authority in relation to the Project.
2. The Consultant may be issued one or more written task orders (each a “Task Order”) during the term of this Agreement. Individual Task Orders submitted by Authority to the Consultant shall address the scope of services, deliverables, cost, time schedule, and any other items deemed necessary by Authority for the successful completion of the task identified in the Task Order. Cost limits and fixed fee amounts for individual Task Orders will be negotiated at the time each Task Order is issued and will be included in the final Task Order. In the event of a conflict between the terms and conditions of this Agreement and a Task Order, the terms and conditions of this Agreement shall control.
3. The Consultant agrees to furnish all labor, materials, services, equipment, tools, and other expenses necessary to diligently and timely perform the professional services required under this Agreement and in compliance with the provisions of Attachment A to this Agreement.
4. The Consultant agrees to comply with all requirements and terms contained in the RFQ which is incorporated into this Agreement by reference. In the event of an express conflict between the RFQ and the terms of this Agreement, this Agreement shall control.

ARTICLE II - PERFORMANCE

1. The term of this Agreement shall be from the date first written above through and including the date Consultant concludes its work on the Project, unless an extension of the term of this Agreement is agreed to in writing signed by all parties to this Agreement and approved by appropriate official action of the governing body of the Authority prior to such term expiration date.
2. In the event that the Consultant performs or causes to be performed any work after: (a) the Agreement's expiration date as set forth within this Agreement, as it may be amended from time to time as set forth above; or (b) termination of this Agreement prior to the expiration date set forth within this Agreement; then the Authority shall make no payment for work performed following the expiration or termination dates, and the Consultant shall forfeit any and all right to payment for such work unless such work is performed after said termination with the express, written authorization of the Authority.
3. The Consultant, on behalf of itself, its officers, directors, shareholders, employees, independent contractors, representatives, attorneys, agents, and assigns, does hereby waive, release, and forever discharge the Authority, and its officers, directors, employees, independent contractors, representatives, attorneys, agents, and assigns, from any and all claims, demands, liens, liability, actions, causes of action, and suits for damages, at law and in equity, in any way connected with or arising from the Consultant's provision of services and work performed following termination of this Agreement, and/or following the expiration date of this Agreement, as it may be amended from time to time through written amendment signed by the parties hereto and approved by appropriate official action of the Authority's governing body, prior to such expiration date.
4. Neither the Authority nor its officers, directors, agents, contractors, and employees shall have authority to extend this Agreement beyond the expiration date set forth within this Agreement unless such extension is set forth within a written amendment signed by the parties hereto and approved by appropriate official action of the Authority's governing body prior to such expiration date. The Consultant shall not rely upon any oral or written representations expressed extrinsic to a written amendment signed by the parties hereto and approved by appropriate official action of the Authority's governing body prior to such expiration date, purporting to alter or amend this Agreement, including, but not limited to, representations relating to the extension of the Agreement's expiration date.
5. Paragraphs 1 through 6 of this Article II - Performance shall survive the termination and expiration of this Agreement.
6. The Consultant shall not proceed with work until the Consultant receives a written "Notice to Proceed" (each a "NTP") from the Authority. Upon receipt of the NTP, the Consultant shall begin to perform the work set forth in the Scope of Services (Attachment A). If the Consultant does commence said work prior to receiving the NTP or performs work not identified in Attachment A, at the request of the Authority, the Consultant does so at its own risk.
7. In the event the Authority discovers a Consultant's error or omission before its discovery by the Consultant, the Authority shall not unreasonably delay in notifying Consultant of such error or omission in writing. Authority's notice to Consultant shall specify the maximum time period Consultant will be allowed for correction. The Consultant shall make all necessary corrections

resulting from its errors and omissions and shall without delay make any corrections necessitated by the negligence, lack of adequate resources, or any other cause within the Consultant's control, and shall make such corrections without additional compensation. Consultant shall track all related costs for the correction. Acceptance of the professional services by the Authority will not relieve the Consultant of the responsibility for any subsequent correction of any such errors and omissions, and the clarification of any ambiguities. The Consultant will be responsible for additional costs in subsequent, related services and/or actions resulting from its errors or omissions. Should the Authority use its own personnel and/or resources to remedy the deficiency, all such costs incurred by the Authority shall be deducted from the sum due or which may become due to the Consultant. In the event all such costs and charges incurred by the Authority exceed the sum which would have been payable under this Agreement, then the Consultant shall reimburse the Authority the amount of said excess within thirty (30) days of receipt of written notice from Authority requesting payment of same.

8. The Consultant shall assign one (1) individual throughout the period of this Agreement who shall have overall Project responsibility unless illness or termination requires replacement. In the event Consultant wishes to change the assigned individual, it shall provide advanced, written notice of the change to Authority. Authority shall be entitled to rely on the decisions and representations of said individual, who shall have the actual and apparent authority to bind Consultant to said decisions and representations.
9. A key person is defined as any individual identified by the Consultant in its Statement of Qualifications (the "SOQ") proposal as being part of the team to be assigned to the Project. The Consultant acknowledges and agrees that the award reflected in this Agreement was based, in material part, on its ability to manage the Project and the qualifications, experience, and capacity of the Consultant's aforementioned key persons, employees, agents and team. The Consultant represents, warrants, and covenants that such key persons are, and will continue to be, available to undertake and perform all services identified herein and fulfill the roles identified in its SOQ. The Consultant shall notify the Authority in writing within ten (10) calendar days when a key person leaves the Project team.
 - a. If a key person leaves the Project team, the Consultant shall promptly propose a replacement within thirty (30) calendar days to and for the Authority's review and written consent.
 - b. The Authority shall have the unilateral right to terminate this Agreement:
 - i. If a key person leaves the Project team for a reason other than death, retirement, incapacitation, or leaving Consultant's employment (including the employment with Consultant's affiliates, subsidiaries, and parent companies/organizations);
 - ii. If a key person listed by the Consultant in its proposal to perform or supervise various aspects of design is changed or leaves the Project team; or
 - iii. If the Authority does not accept the Consultant's proposed key person replacement; or
 - iv. If any material delay in the appointment of key person(s) replacement(s) by Consultant results in unreasonable delay to the Project as determined by Authority in its reasonable discretion.
10. If this Agreement is terminated pursuant to the above, the Consultant shall be paid for actual costs incurred for all services rendered and accepted by the Authority along with an amount of fee proportional to the work completed as of the date of termination with said amounts for completed work corresponding to the amounts set forth generally in Consultant's bid documents for the Project as accepted by the Authority. Additionally, the Consultant shall not be entitled to any settlement

costs, if any. Such termination will not occur if the Consultant provides a key person replacement that is acceptable to the Authority within thirty (30) calendar days of the date when the key person is changed or has left the Project team.

11. The Consultant shall at all times maintain control over and have complete responsibility for all services performed pursuant to this Agreement by the Consultant and any of its subcontractors.
12. The Consultant warrants that all deliverables and professional services produced under this Agreement shall be completed in a workmanlike manner consistent with standards in the trade, profession, or industry. The standard of care applicable to Consultant's services will be that degree of skill and diligence normally employed by consultants performing the same or similar services at the time said services are performed. To the extent there is any dispute between the parties concerning the provisions of this paragraph and quality of work performed by Consultant, the Authority's position and decision on the same shall control as long as the Authority's position and decision is not arbitrary or unreasonable.
13. This Agreement and any authorized amendments may be suspended temporarily, either wholly or in part, by the Authority upon oral notice confirmed in writing within ten (10) calendar days, when the Authority determines that conditions beyond the control of the Consultant are unfavorable to its satisfactory continuation of work. Should such conditions be encountered, the time for completion may be extended in an amount determined by the Authority to be equivalent to the delay. Requests for suspension of time by the Consultant must have the written approval of the Authority to be relied upon and effective. No allowance shall be made for delay or suspension of the services solely due to the fault of the Consultant.
14. Any amendment ordered by the Authority in writing which changes the services provided for by the express terms of this Agreement will be considered extra professional services and shall be specified in a written amendment signed by all parties hereto, which will set forth the nature and scope thereof. The method of payment for extra professional services shall be specified at the time the amendment is written. No verbal or oral changes to the scope of services to be provided by Consultant pursuant to this Agreement shall be effective or shall alter or modify this Agreement in any way unless in writing and signed by all parties hereto. Consultant shall not perform any services not expressly provided by and in this Agreement except as set forth in this paragraph.
15. The Consultant shall not assign or subcontract any or all of the professional services performed under this Agreement without the prior written approval of the Authority. The Consultant will, subsequent to obtaining written approval from the Authority, provide the Authority with a copy of the contract or agreement for professional services.
16. The Consultant shall require its subcontractors to comply with all provisions of 48 C.F.R. Chapter 1, Part 31, and, if the subcontract agreement exceeds One Hundred Thousand and No/00 Dollars (\$100,000.00), the subcontract agreement shall also comply with Paragraph 17 in of this Article. The Consultant will be responsible for any costs or deficiencies resulting from noncompliance if the subcontractors fail to comply with 48 C.F.R. Chapter 1, Part 31, and shall indemnify and hold Authority harmless from same. Any attempted assignment of rights or delegation of duties under this Agreement without the prior written consent of the Authority shall be void.
17. There are no Disadvantaged Business Enterprise (DBE) program goals for this Agreement. However, the Authority, in accordance with Title VI of the Civil Rights Act of 1964 and 49 C.F.R. Part 26, hereby notifies all bidders and proposers that it will affirmatively ensure that in regard to any contract

entered into, certified DBE firms will be afforded full opportunity to submit bids and proposals in response to our invitation and will not be discriminated against on the grounds of race, color, sex, age, disability, or national origin in consideration for an award. Although there is no contract-specific goal associated, the Authority encourages Consultant to make the same effort to ensure nondiscrimination in the award and administration of subcontracts, to help remove barriers to the participation of DBEs, and to assist in the development of firms that can compete successfully in the marketplace outside the DBE program.

18. This Agreement is contingent upon the verification that the Consultant has a valid and active Florida Business License and is in good standing in all areas of the Secretary of State's business requirements. If the Consultant is an out of state provider, the Consultant must be registered as a foreign business entity equivalent in Florida, in active status, and in good standing.

ARTICLE III - TERMINATION

1. The Authority may terminate this Agreement without cause thirty (30) calendar days after service of a termination letter to the Consultant. In the event this Agreement is terminated in this manner, the Consultant shall be paid for the actual cost of the professional services which have been completed and accepted by the Authority up to the date of termination with said cost for completed work corresponding to the amounts set forth generally in Consultant's bid documents for the Project as accepted by the Authority.
2. This Agreement is subject to and contingent upon sufficient funds being appropriated, budgeted, and otherwise made available by Space Florida and/or Florida Department of Transportation (FDOT) sources. The Authority may terminate this Agreement, and the Consultant waives any and all claims for damages, effective immediately upon receipt of written notice, or any date specified therein, if for any reason the Authority's funding from federal and/or state sources is not appropriated or is withdrawn, limited, or impaired.
3. A default or breach may be declared with or without termination. This Agreement may be terminated by either party upon written notice of default or breach to the other party as follows:
 - a. If, in the Authority's sole but reasonable discretion, the Consultant fails to provide or satisfactorily perform any of the professional services called for by this Agreement within the time requirements specified in this Agreement or within any granted extension of those time requirements; or
 - b. If any state, county, city, or federal license, authorization, waiver, permit, qualification, or certification required by statute, ordinance, law, or regulation to be held by the Consultant to provide the goods or services required by this Agreement is for any reason denied, revoked, debarred, excluded, terminated, suspended, lapsed, or not renewed; or
 - c. If the Consultant becomes insolvent, subject to receivership, or becomes voluntarily or involuntarily subject to the jurisdiction of a bankruptcy court; or
 - d. If Authority materially breaches any material duty under this Agreement and any such breach impairs the Consultant's ability to perform; or
 - e. If it is found by the Authority that any quid pro quo or gratuities in the form of money, services, entertainment, gifts, or otherwise were offered or given by the Consultant, or any agent or

representative of the Consultant, to any officer or employee of the Authority with a view toward securing an agreement or securing favorable treatment with respect to awarding, extending, amending, or making any determination with respect to the performing of such agreement; or

- f. If the Consultant knowingly bills the Authority for unallowable costs or non-bona fide goods or services, or for goods and services not provided.
4. Termination upon a declared default or breach may be exercised after service of written notice and the subsequent failure of the defaulting party, within fifteen (15) calendar days of service of that notice, to provide evidence, satisfactory to the aggrieved party, showing the declared default or breach has been corrected or, to the extent such default cannot be entirely cured within said 15-day period, that the breaching party has commenced reasonable corrective action and thereafter diligently pursues such corrective action until the breach is cured. Such correspondence shall be deemed to have been served on the date of postmark or, to the extent such written notice is provided by email, on the date identified in said email as the date of delivery to the receiving party.
5. In the event of the Consultant's breach of this Agreement, all costs and charges incurred by the Authority, together with the cost of completing the work under this Agreement, shall be deducted from any money due or which may become due to the Consultant, and Authority may withhold any such payment(s) due Consultant until such costs and charges are reasonably known to Authority. If expenses exceed the sum which would have been payable under this Agreement, then the Consultant shall be liable and shall pay to the Authority the amount of said excess.
6. This Agreement shall be terminated when the professional services contemplated and covered by this Agreement and any related amendments have been completely performed by the Consultant, all items of professional services have been approved and accepted by the Authority, and final payment is made and accepted.

ARTICLE IV - COST

1. "The lump sum" method of compensation shall be used for the Consultant's services.
2. The total cost of the services by the Consultant for the PROJECT shall not exceed the sum of Three Hundred Thousand Dollars (\$300,000). Funds not used during the term of this Agreement will not be paid to the Consultant.
3. The total amount payable by the Authority for the PROJECT shall not exceed the amount agreed to in this Agreement, unless additional funds are agreed to by written amendment and signed by all parties hereto.
4. The cost of the work to be performed under this Agreement will be paid for by the Authority monthly and upon acceptance of the work.
5. No additional costs shall be allowed to the Consultant for assistance by or services of others except by express permission in writing by the Authority.
6. The Authority shall pay the Consultant in installments, based upon monthly progress reports showing the status of the professional services, and the degree of completion. The Authority, at its discretion, may, by written notification, waive this limitation.

7. The Consultant's cost billing, reimbursement, and audit will be accomplished in accordance with the federal cost principles set forth in 48 CFR Chapter 1, Part 31.
8. The Consultant is required to submit a monthly progress report in the Authority's format showing the status of the professional services and the degree of completion thereof.

ARTICLE V - SCHEDULE OF PAYMENTS

1. The Consultant shall submit a signed invoice monthly for all services rendered along with one (1) copy of substantiating documentation. The invoice must be submitted on the Consultant's stationery using a format acceptable by the Authority. The Authority will utilize its normal accounting procedure in the payment of the invoices submitted.
2. The Authority reserves the right to inspect and approve the professional services performed before payment is made to the Consultant. Payment will be withheld for deliverables and professional services the Authority determines in its sole but reasonable discretion to be unsatisfactory in that they have not been provided in a workmanlike manner consistent with standards in the trade, profession, or industry. Payment shall remain unpaid until the professional services are completed in accordance with the standards and work requirements defined in this Agreement. In such an event, the Authority will provide the Consultant with a written explanation as to why payment has been withheld.
3. The total cost of services for this Agreement is the negotiated amount identified in Article IV, Paragraph 2. This amount was based upon the Consultant's labor and expenses as well as the costs and fixed fees of all of its subcontractors. If a subcontractor does not expend all funds allocated to it pursuant to Contractor's bid for services identified in its agreement with the Consultant, Consultant shall not redistribute or expend such funds without the prior written approval of the Authority. Failure to notify the Authority prior to the use of such funds will constitute grounds for denial of reimbursement for such expenditures or, to the extent such reimbursement has already been paid to Consultant, Consultant shall repay such reimbursement to Authority in full.
4. Payment of invoices, interest penalties, and discounts shall be paid as follows:
 - a. The Consultant shall be paid within thirty (30) calendar days after receipt of federal funds approved for a postmarked invoice which is complete, correct, and undisputed by the Authority.
 - b. The Authority shall have twenty-one (21) calendar days after postmark of an invoice to dispute any or all of the charges on that invoice. The undisputed amount shall be paid to the Consultant within thirty (30) calendar days after receipt of the federal funds for the approved invoice. The disputed amount shall be negotiated and resolved in good faith by both parties hereto and paid within thirty (30) calendar days after the date the corrected invoice is received by the Authority or is approved by both parties hereto for payment.
 - c. If the Authority fails to pay the Consultant the undisputed amount within sixty (60) calendar days after receipt of federal funds for the approved invoice, the interest penalty assessed to the Authority shall be one percent (1%) of the undisputed amount per month, not to exceed a total of One Thousand and No/100 Dollars (\$1,000.00).

- d. Payment of penalties shall not apply to the final payment or bill pertaining to this Agreement as determined by the post audit.
5. The prevailing party in any action arising from and/or related to this Agreement is entitled to recover its reasonable attorney's fees and costs incurred in such action from the non-prevailing party.

ARTICLE VI – INDEMNIFICATION

Consultant shall indemnify and hold harmless Authority and its officers, directors, employees, agents and assigns from any and all liability, losses or damages, including reasonable attorneys' fees and costs of defense, that Authority incurs or may incur as a result of claims, demands, suits, causes of action or proceedings of any kind or nature arising out of, relating to or resulting from the negligence or wrongful acts and/or omissions of Consultant and/or its officers, directors, employees, agents, subcontractors or assigns. Consultant shall pay all claims and losses in connection therewith and shall investigate and defend all claims, suits or action of any kind or nature in the name of Authority, where applicable, including appellate proceedings, and shall pay costs, judgments and reasonable attorney's fees which may issue thereon. Consultant expressly understands and agrees that any insurance protection required by this Lease or otherwise provided by Consultant shall in no way limit its responsibility to indemnify, keep and save harmless and defend the Consultant and/or its officers, directors, employees, agents, subcontractors or assigns as herein provided. The obligation of Consultant hereunder shall survive the termination of this Agreement. Consultant's obligation to indemnify Authority hereunder shall in no way affect, abridge or amend Authority's right to assert governmental or sovereign immunity as to any claims, other than those by the parties or their respective permitted transferees and assignees, including without limitation the immunity afforded under section 768.28, Florida Statutes.

ARTICLE VII – MISCELLANEOUS PROVISIONS

1. The Consultant shall be responsible for and shall comply with all applicable federal, state, and local government obligations and Authority policies and procedures. The Consultant will be responsible for and shall pay all taxes, assessments, fees, premiums, permits, and licenses required by law. The Consultant warrants that it has a valid business license. The Consultant agrees to be responsible for and shall pay any such government obligations not paid by its subcontractors during performance of this Agreement. The Authority may set-off any consideration due against any delinquent government obligation.
2. It is expressly understood that the Consultant is an independent contractor and is subject to all federal and state statutes and laws relating to independent contractors. Nothing contained in this Agreement shall be deemed or construed to create a partnership or joint venture, to create relationships of an employer-employee or principal-agent, or to otherwise create any liability for the Authority whatsoever with respect to the indebtedness, liabilities, and obligations of the Consultant or any other party. Neither the Consultant nor its employees, agents or representatives shall be considered employees, agents, or representatives of the Authority.
3. The Consultant shall be solely responsible for its own employees, and the Authority shall have no obligation with respect to:
 - a. Withholding of income taxes, FICA, or any other taxes or fees;

- b. Industrial insurance coverage;
 - c. Participation in any group insurance plans available to employees of the Authority;
 - e. Accumulation of vacation leave or sick leave; and/or
 - f. Unemployment compensation coverage provided by the Authority.
4. The Consultant shall indemnify and hold the Authority harmless from, and defend the Authority against, any and all losses, damages, claims, costs, penalties, liabilities, and expenses arising or incurred because of, incident to, or otherwise with respect to any such taxes, fees, insurance, contributions, leave, or coverage.
 5. Unless expressly provided in this Agreement, the Consultant shall not engage or use the devices and/or services of the Authority's personnel without the prior written consent of the Authority.
 6. The Consultant shall, before commencing professional services under the provisions of this Agreement, furnish to the Authority proof of worker's compensation insurance as required by the State of Florida.
 7. The Consultant shall furnish a Certificate of Errors and Omissions Insurance with a minimum limit of One Million and No/100 Dollars (\$1,000,000.00).
 8. The Consultant shall furnish a Certificate, a Declarations Page, and an Endorsement designating the Authority as an additional insured evidencing Commercial General Liability Insurance with a minimum limit of One Million and No/100 Dollars (\$1,000,000.00) per occurrence. These policies shall be maintained for the entire period that work is conducted under this Agreement. The Consultant shall provide replacement evidence of insurance no less than thirty (30) calendar days prior to the date of expiration. The policies shall include a thirty (30) calendar day advance written notice of any cancellation of said policies. The Consultant shall furnish the Authority with certificates of such insurance prior to commencement of professional services.
 9. All insurance required by this Agreement shall be placed with insurers with a rating from the current issue of Best's Key Rating Guide of no less than A-: VII.
 10. The Authority has the option of requesting, at any time, a meeting with the Consultant or its authorized representative to discuss and review Project status.
 11. The Consultant has total responsibility for the accuracy and correctness of written data prepared under the terms of this Agreement and shall check all such material accordingly for completeness, missing items, correct multipliers, and consistency. The deliverables shall be reviewed by the Authority for conformity with the Authority's procedures and contract terms. The Consultant acknowledges that review by the Authority does not include detailed review or checking of major components and related details or the accuracy of such deliverables, and the Authority's review shall not relieve the Consultant of its total responsibility for the accuracy and correctness of data prepared under the terms of this Agreement.
 12. The Consultant shall appear as a consultant and, if necessary, as an expert witness on behalf of the Authority in any subsequent court action which involves any of the services required by this Agreement. Compensation for services rendered in this regard will be paid at a rate to be negotiated at the time such services are necessary.

13. Upon completion, termination, or cancellation of the services embraced under this Agreement, all professional services inclusive of research, investigation, analysis data, reports (including files stored on mobile media), computations, tabulations, original drawings and digital design files (including CAD information stored on mobile media), correspondence input from external sources (including subcontractors), etc., shall be delivered to and become the property of the Authority, without limitation. Reuse of said materials, information or data, during performance or following termination of this Agreement, on any other project or for any other purpose except as provided for herein, shall be at the Authority's sole decision. The Consultant shall not utilize any materials, information, or data obtained as a result of performing the services called for in this Agreement in any commercial or academic publication or presentation without the express written permission of the Authority. The Consultant shall not reference an opinion of an employee or agent of the Authority obtained as a result of performing the services called for in this Agreement, in any publication or presentation, without the written permission of the employee or agent to whom the opinion is attributed, in addition to the written permission of the Authority.
14. All digital copies of reports, graphic data, and other materials shall be delivered to the Authority via a project-specific Dropbox folder. Files shall be prepared using the most current version of Microsoft Word, Microsoft Excel, Microsoft PowerPoint, and AutoCAD. Geographic information systems (GIS), drawings, maps, and other GIS data shall be delivered via Environmental Systems Research Institute (ESRI) data formats or Google Earth Pro KMZ or KML file formats as appropriate for those work products.
15. The Consultant agrees that any reports, materials, studies, photographs, negatives, drawings, or other documents prepared by the Consultant in the performance of its obligations under this Agreement shall be the exclusive property of the Authority. The Consultant shall remit all such documents to the Authority upon completion, termination, or cancellation of this Agreement or upon written request of the Authority. The Consultant shall not use, willingly allow, or cause to have such documents used for any purpose other than performance of the Consultant's obligations under this Agreement, without the prior written consent of the Authority.
16. The Consultant and successors, executors, administrators, and assigns of the Consultant's interest in the professional services or the compensation herein provided shall be bound to the Authority to the full legal extent to which the Consultant is bound with respect to each of the terms of this Agreement.
17. The Consultant warrants that it has not employed or retained any company or persons (other than a bona fide employee working solely for the Consultant) to solicit or secure this Agreement and that the Consultant has not paid or agreed to pay any company or persons (other than a bona fide employee working solely for the Consultant) any fee, commission, percentage, brokerage fee, or any other gifts contingent upon or resulting from the award or making of this Agreement. For breach or violation of this warranty, the Authority shall have the right to annul this Agreement without liability, or, in its discretion, to deduct from the Agreement price or consideration, or otherwise recover, the full amount of such fee, commission, percentage, brokerage fee, gift, or contingent fee.
18. Any dispute arising under this Agreement as to performance, compensation, and the interpretation of satisfactory fulfillment of the terms of this Agreement shall be decided by the Authority. It is the intent of the Authority to resolve disputes at the lowest level possible. Nothing herein contained shall impair either of the parties' right to file suit in the state district courts of the State of Florida. The parties further agree that sole and exclusive jurisdiction and venue for any action arising from and/or

related to this Agreement shall lie irrevocably in the state courts in and for Brevard County, Florida, forsaking all other jurisdictions and venues and without regard to forum non conveniens.

19. During the performance of this Agreement, the Consultant, for itself, its assignees and successors in interest agrees as follows:

- a. Compliance with Regulations: The Consultant shall comply with all of the regulations relative to nondiscrimination in federally-assisted programs of 49 CFR Part 21 as they may be amended from time to time (hereinafter "Regulations"), which are herein incorporated by reference and made a part of this Agreement.
- b. Nondiscrimination: The Consultant, with regard to the professional services performed by it during the Agreement, shall not discriminate on the grounds of race, color, age, religion, sex, creed, handicap, or national origin in the selection and retention of subcontractors, including procurement of materials and leases of equipment. The Consultant shall not participate either directly or indirectly in the discrimination prohibited by Section 21.5 of the Regulations, including employment practices, when the Agreement covers a program set forth in Appendix B of the Regulations.
- c. Solicitations for Subcontracts, Including Procurement of Materials, and Equipment: In all solicitations either by competitive bidding or negotiation made by the Consultant for professional services to be performed under a subcontract, including procurement of materials or leases of equipment, each potential subcontractor or supplier shall be notified by the Consultant of the Consultant's obligations under this Agreement and the Regulations relative to nondiscrimination on the grounds of race, color, age, religion, sex, creed, handicap, or national origin.
- d. Sanctions for Noncompliance: In the event of the Consultant's noncompliance with the nondiscrimination provisions of this Agreement, the Authority shall impose such Agreement sanctions as it or the Federal Aviation Administration (FAA) may determine to be appropriate, including, but not limited to:
 - (1) Withholding of payments to the Consultant under the Agreement until the Consultant complies, and/or or in part.
 - (2) Cancellation, termination, or suspension of the Agreement, in whole.
- e. Agreements with subcontractors will include provisions making all subcontractor records available for audit by the Authority, Space Florida, and the Florida Department of Transportation (FDOT).
- f. Incorporation of Provisions: The Consultant will include the provisions of Paragraphs (a) through (f) above in every subcontract including procurement of materials and leases of equipment, unless exempt by Regulations, order, or instructions issued pursuant thereto. The Consultant will take such action with respect to any subcontract or procurement as the Authority, Space Florida, or FDOT may direct as a means of enforcing such provisions, including sanctions for non-compliance. In the event Consultant becomes involved in, or is threatened with, litigation by a subcontractor or supplier as a result of such direction, the Consultant may request the Authority to enter into such litigation to protect the interests of the Authority, and the Consultant may request the United States to enter into such litigation to protect the interests of the United States.

20. If federal funds shall be used for payment of all or part of this Agreement, the Consultant, for itself, its assignees, and successors in interest agrees as follows:
- a. Debarment and/or Suspension: The Consultant certifies that neither it nor its subcontractors, nor their principals are presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any federal Authority or agency. Consultant is subject to suspension and debarment actions as specified in 2 CFR Part 1200 and 2 CFR Part 180, potential cause of action under the False Claims Act as specified in 32 U.S.C. §§ 3729-3733, inclusive, and prosecution for making a false statement as specified in 18 U.S.C. § 1020.
 - b. ADA: The Consultant and subcontractor shall comply with all terms, conditions, and requirements of the Americans with Disabilities Act of 1980, as amended, and the regulations adopted thereunder contained in 49 CFR Part 27, and any relevant program- specific regulations.
 - c. Civil Rights: The Consultant and subcontractor shall comply with the requirements of the Civil Rights Act of 1964, as amended, the Rehabilitation Act of 1973, as amended, and any relevant program-specific regulations and shall not discriminate against any employee or person offered employment because of race, national origin, creed, color, sex, religion, age, disability, or handicap condition.
21. Each party agrees to keep and maintain under generally accepted accounting principles full, true, and complete records and documents pertaining to this Agreement and present, at any reasonable time, such information for inspection, examination, review, audit, and copying at any office where such records and documentation are maintained. It is expressly understood that the duly authorized representatives of the Authority, Space Florida, FAA, FDOT and the Department of Transportation's Inspector General, the Comptroller General of the United States, or any of their duly authorized representatives shall have the right to inspect/audit the professional services and charges of the Consultant whenever such representatives may deem such inspection to be desirable or necessary. Such records and documentation shall be maintained for three (3) years after final payment is made.
22. The Consultant shall use its own vehicles, and the Authority is not responsible for the payment of any premiums, deductibles, or assessments on any insurance policies purchased by the Consultant.
23. The Consultant warrants that all deliverables and work produced under this Agreement shall be completed in a workmanlike manner consistent with standards in the trade, profession, or industry.
24. The Consultant agrees that, prior to any sale, transfer, business name change, change in principals, or any other occurrence that alters this Agreement in any way, the Consultant shall notify the Authority of such intent at least seven (7) calendar days prior to making said change.
25. All notices or other communications required or permitted to be given under this Agreement shall be in writing and shall be deemed to have been duly given if delivered personally in hand, by telephonic facsimile with simultaneous regular mail, or mailed certified mail, return receipt requested, postage prepaid on the date posted, and addressed to the other party at the address set forth below:

FOR Authority:

Kevin Daugherty, AAE
Director of Airports
Titusville – Cocoa Airport Authority
355 Golden Knights Blvd.
Titusville, Florida 32870
Phone: (321) 267-8780
Email: kdaugherty@flairport.com

FOR Consultant:

Pete Ricondo, P.E.
Senior Vice President
Ricondo & Associates, Inc.
1000 NW 57th Court, Suite 920
Miami, FL 33126
Phone: (305) 260-2727 x251
Email: pricondo@ricondo.com

26. This Agreement and the rights and obligations of the parties hereto shall be governed by, and construed according to, the laws of the State of Florida.
27. As used herein the term “Consultant” shall include the plural as well as the singular, and the feminine as well as the masculine.
28. Neither party shall be deemed to be in violation of this Agreement if it is prevented from performing any of its obligations hereunder for any reason beyond its control, including, without limitation, strikes, inmate disturbances, acts of God, civil or military authority, act of public enemy, or accidents, fires, explosions, earthquakes, floods, winds, failure of public transportation, or any other similar serious cause beyond the reasonable control of either party. In such an event the intervening cause must not be through the fault of the party asserting such an excuse, and the excused party is obligated promptly to perform in accordance with the terms of this Agreement after the intervening cause ceases.
29. In connection with the performance of work under this Agreement, the Consultant agrees not to discriminate against any employee or applicant for employment because of race, color, religion, sex, national origin, age, disability, pregnancy, sexual orientation, genetic information (GINA) or gender identity or expression, including, without limitation, with regard to employment, upgrading, demotion or transfer, recruitment or recruitment advertising, layoff or termination, rates of pay or other forms of compensation, and selection for training, including without limitation apprenticeship. The Consultant further agrees to insert this provision in all subcontracts hereunder, except subcontracts for standard commercial supplies or raw materials.
30. The Consultant shall keep confidential all information, in whatever form, produced, prepared, observed, or received by the Consultant to the extent that such information is confidential by law or otherwise required by this Agreement.

31. Pursuant to Florida Statutes, information or documents may be open to public inspection and copying. The Authority will have the duty to disclose unless a particular record is confidential by law or otherwise exempt from disclosure pursuant to chapter 119, Florida Statutes.
32. The illegality or invalidity of any provision or portion of this Agreement shall not affect the validity of the remainder of the Agreement and this Agreement shall be construed as if such provision did not exist. The unenforceability of such provision shall not be held to render any other provision or provisions of this Agreement unenforceable.
33. Authority and Tenant agree this Agreement is the result of negotiation between the parties hereto and has been typed/printed by one party for the convenience of both parties, and the parties covenant that this Agreement shall not be construed in favor of or against any of the parties hereto or against the “drafter” hereof.
34. Except as otherwise provided for by law or this Agreement, the rights and remedies of the parties hereto shall not be exclusive and are in addition to any other rights and remedies provided by law or equity, including, without limitation, the recovery of actual damages and the prevailing party’s reasonable attorney’s fees and costs.
35. It is specifically agreed between the parties executing this Agreement that it is not intended by any of the provisions of any part of this Agreement to create in the public or any member thereof a third party beneficiary status hereunder, or to authorize anyone not a party to this Agreement to maintain a suit for personal injuries or property damage, or pursuant to the terms or provisions of this Agreement.
36. The parties hereto represent and warrant that the person executing this Agreement on behalf of each party has full power and authority to enter into this Agreement and that the parties are authorized by law to perform the services set forth herein.
37. This Agreement constitutes the entire agreement of the parties and such is intended as a complete and exclusive statement of the promises, representations, negotiations, discussions, and other agreements that may have been made in connection with the subject matter hereof. Unless an integrated attachment to this Agreement specifically displays a mutual intent to amend a particular part of this Agreement, general conflicts in language between any such attachment and this Agreement shall be construed consistent with the terms of this Agreement. Unless otherwise expressly authorized by the terms of this Agreement, no modification or amendment to this Agreement shall be binding upon the parties unless the same is in writing and signed by the respective parties hereto and the Attorney General.
38. At the end of the term of this Agreement described in Article II – Performance, Paragraph 1, the Consultant will be evaluated, and that evaluation may be used for evaluation of future procurements.

(Signature Page Follows)

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK]

IN WITNESS WHEREOF, the authorized representatives of the Consultant and the Authority have caused their names to be signed hereon on the date first above written.

Signed, Sealed and Delivered
in the presence of:

AUTHORITY:
TITUSVILLE-COCOA AIRPORT AUTHORITY

Witness

By: _____
Kevin Daugherty, AAE
Director of Airports

Witness

Attest: _____
Name: _____
Position: _____
(corporate seal)

Kimberley Davis
Witness

CONSULTANT:
RICONDO & ASSOCIATES, INC.

By: _____

Printed Name: _____ Pete Ricondo, P.E.

Printed Title: _____ Senior Vice President

Ganett Bond
Witness

Attest: [Signature]
(corporate seal)



Attachment A

Jacobs

Final Scope of Work Outline – Titusville/Cocoa Airport Authority (TCAA) Spaceport Master Plan 7.18.22

FINAL SCOPE OF WORK OUTLINE

As a Sub-Consultant to Ricondo, Jacobs will perform the following tasks for a Spaceport Master Plan. The final fee is **\$300,000**.

Task 1 – Project Kick-Off

1. Project Kick-off Meeting
2. Request For Information (RFI) List Development (Gathering, Dissemination, and Updating)
3. Pre-Charrette Surveys (Visioning, Facilities, and Site)
4. Inventory of Spaceport Physical Facilities
5. Review of Initial Base Map Information and Infrastructure
6. Set Charrette Schedule (with all Key Stakeholders)

Task 2 - Basis of Planning - Charrette, Strategic Visioning, and Inventory and Discovery

1. Conduct One (1) Onsite Charrette (In-Person)
2. Vision Statement Development
3. Discussion of Florida Spaceport System Plan (for Data Gathering Purposes Only)
4. Discuss Technology Integration (for Data Gathering Purposes Only)
5. Existing Conditions – Site, Facilities, and Infrastructure - Data Gathering
6. Existing Conditions - Utilities
7. Existing Conditions - Environmental Constraints
8. Existing Conditions - Wetland Areas and Other Site Constraints
9. Existing and Proposed Adjacency Requirements
10. Regional Facilities Information and Adjacencies
 - i. Adjacent Spaceports (Florida System Plan)
11. Discussion of Potential High-Level Facilities Requirements
 - i. Astrotech
 - ii. Space Perspective
 - iii. Vaya Space
 - iv. Space Coast Jet Center
 - v. Boeing
 - vi. Craig Technologies
 - vii. Lockheed Martin
 - viii. Other Project Related Groups or Teams
12. Review Existing Operating Agreements
 - i. Spaceport License
 - Framework
 - Infrastructure
 - Changes in Legislations
 - Extension of License
 - Concept of Operations (ConOps)
13. Review TCAA Provided Environmental and Facility Permitting Information
 - i. Spaceport Territory
 - Assess Ownership
 - Assess Boundary
14. Space Transportation Market Analysis Survey (and Emerging Technologies)
 - i. Gather and Review Sub-Markets Information for Competitive Position Analysis
 1. Commercial

2. Defense
 3. Science
 4. Tourism
 5. Education
 6. Healthcare
 7. Community
 - ii. Gather and Review Space Transportation Support Markets Information
 1. Research, Testing, and Development
 2. Freight and Logistics
 3. Education
 - iii. Gather and Review Other/Competitor Spaceport Markets Information
 1. Outside Continental U.S. (OCONUS)
 2. Continental U.S. (CONUS)
 - iv. Identify Key Performance Indicators
 - v. Gather and review Spaceport budget and proposed project information for:
 1. Operating Costs and Proposed Projects – Provided by TCAA
 2. Maintenance Plan Costs and Proposed Projects – Provided by TCAA
 - vi. Perform Initial SWOT Analysis
 - vii. Discuss and Develop potential Tenant information - Revenue Opportunities – Not including Return on Investment Analysis
15. Review Overall Site and Existing Facilities Constraints and Opportunities
16. Basis of Planning Report
17. Check-In Meeting(s) (Virtual or In Person TBD)

Task 3 – Formulate the Master Plan – Draft Report

1. Facilities Requirements Analysis
2. Site Requirements Analysis
3. Environmental Requirements Analysis
4. Operating Requirements Analysis
5. Concept Development (Site and Facilities)
6. Spaceport Facilities Layout Plan
7. Check-In Meeting(s) (Virtual or In Person TBD)
8. Townhall Meeting

Task 4 - Implementation Plan – Final Report

1. Implementing the Spaceport Facilities Layout Plan
 - i. Short-Term (0-5 years) - Building Layout and Phasing
 - ii. Medium-Term (6-10 years) - Building Layout (no phasing)
 - iii. Long-Term (11-20 years) - Building Layout (no phasing)
 - iv. Conceptual high-level project schedules for design and construction – Short-Term Projects only
2. Cost Estimating
 - i. Rough-order-of-magnitude (ROM) cost estimates will be prepared for the Implementation Plan for **up to 25** discrete projects.
 - ii. The ROM costs will be developed on a planning/conceptual nature and include facilities and site construction costs (including percentage costs only for project design and construction management) (up to 25 discrete projects).
3. Check-In Meeting(s) (Virtual or In Person TBD)
4. Final Documentation

Task 5 – Project Management

1. Meeting Minutes
2. Monthly Activity Report
3. Invoices + Final Invoice
4. QC of Deliverables
5. Ricondo Collaboration

Item	Deliverable	Due
(a)	Meeting Minutes <ul style="list-style-type: none"> - Kick Off Meeting - Check-In Meetings 	No later than fifteen (15) days after the meeting date
(b)	Monthly Activity Report <ul style="list-style-type: none"> - Report will document project progress, milestones, and deliverables for the month 	No later than fifteen (15) days after the end of each quarter until the final invoice has been paid
(c)	Invoices <ul style="list-style-type: none"> - Should include project title and dates of service - Should include a summary report of the work completed during the invoice service dates (can be the monthly activity report if applicable, but must cover all the dates of service on the invoice) 	
(d)	Draft Spaceport Master Plan Document	When available
(e)	Final Spaceport Master Plan Document <ul style="list-style-type: none"> - Provide a PDF copy of the final document 	Upon project completion, no later than fifteen (15) days after contract end date
(f)	Final Invoice <ul style="list-style-type: none"> - Submitted only once all deliverables have been provided and approved by SF - Certify that the project was completed in accordance with the approved statement of work and that the project is suitable for intended purposes 	No later than thirty (30) days after contract end date

Final Scope of Work Outline – Titusville/Cocoa Airport Authority (TCAA) Spaceport Master Plan 7.18.22



Final Project Schedule

[illegible]

Labor/Fee Estimate Summary - Jacobs Engineering Group (as a subconsultant to Ricondo & Associates, Inc.)

BILLING RATE:			LABOR ESTIMATE (HOURS)										FEE ESTIMATE (\$)									
Task Number and Description			Project Mgr / Sr Ping/Prog	Sr. Arch/Sr. Ping	Jr. Arch/Jr. Ping	Aerospace SME	Process Flow Engineer	Market Analysis SME	Civil/Environ	Cost Estimator	QC SME	Ricondo SME	Total	Labor	Expenses	Sub - consultants Expenses	Total					
DRAFT			Billing Rate	\$221.46	\$238.89	\$64.50	\$145.95	\$167.78	\$188.02	\$177.10	\$236.79	\$194.94	\$260.00									
Responsibility																						
Task 1	Project Kick-Off		35	20	40	30	0	20	10	0	0	0	155	\$	25,019	\$	115	\$	-	\$	25,134	
1	Kick-Off meeting	Jacobs																				
2	Request For Information (RFI) Development	Jacobs																				
3	Pre-Charrette Surveys (Visioning, Facilities, and Site)	Jacobs	35	20	40	30	0	20	10	0	0	0	155	\$	25,019	\$	115	\$	-	\$	25,134	
4	Inventory of Spaceport Physical Facilities	Jacobs																				
5	Review of Initial Base Map Information and Infrastructure	Jacobs																				
6	Set Charrette Schedule (with all Key Stakeholders)	Jacobs																				
Fee Totals			\$7,751.10	\$4,777.80	\$2,580.00	\$4,378.50	\$0.00	\$3,760.40	\$1,771.00	\$0.00	\$0.00	\$0.00		695	\$	118,071	\$	3,070	\$	-	\$	121,141
Task 2	Basis of Planning		86	76	103	120	40	200	70	0	0	0	695	\$	118,071	\$	3,070	\$	-	\$	121,141	
1	One (1) Onsite Charrette (In Person)	Jacobs																				
2	Vision Statement Development	Jacobs																				
3	Discussion of Florida Spaceport System Plan	Jacobs																				
4	Discuss Technology Integration	Jacobs																				
5	Existing Conditions - Site, Facilities, and Infrastructure - Data Gathering	Jacobs																				
6	Existing Conditions - Utilities - Data Gathering	Jacobs																				
7	Existing Conditions - Environmental Constraints - Data Gathering	Jacobs																				
8	Existing Conditions - Wetlands Areas and Other Site Constraints - Data Gathering	Jacobs	86	76	103	120	40	200	70	0	0	0	695	\$	118,071	\$	3,070	\$	-	\$	121,141	
9	Existing and Proposed Adjacency Requirements	Jacobs																				
10	Regional Facilities Information and Adjacencies	Jacobs																				
11	Discussion of Potential High-Level Facilities Requirements	Jacobs																				
12	Review Existing Operating Agreements	Jacobs																				
13	Review TCAA Provided Environmental and Facility Permitting Information	Jacobs																				
14	Market Analysis Survey	Jacobs																				
15	Review Overall Site and Existing Facilities Constraints and Opportunities	Jacobs																				
16	Basis of Planning Report	Jacobs																				
17	Check-In Meeting(s)	Jacobs																				
Fee Totals			\$19,045.56	\$18,155.64	\$6,643.50	\$17,514.00	\$6,711.20	\$37,604.00	\$12,397.00	\$0.00	\$0.00	\$0.00		350	\$	57,149	\$	828	\$	-	\$	57,977
Task 3	Master Plan Draft Report		85	60	90	70	0	0	45	0	0	0	350	\$	57,149	\$	828	\$	-	\$	57,977	
1	Facilities Requirements Analysis	Jacobs																				
2	Site Requirements Analysis	Jacobs																				
3	Environmental Requirements Analysis	Jacobs																				
4	Operating Requirements Analysis	Jacobs	85	60	90	70	0	0	45	0	0	0	350	\$	57,149	\$	828	\$	-	\$	57,977	
5	Concept Development (Site and Facilities)	Jacobs																				
6	Spaceport Facilities Layout Plan	Jacobs																				
7	Check-In Meeting(s)	Jacobs																				
8	Townhall Meeting	Jacobs																				
Fee Totals			\$18,824.10	\$14,333.40	\$5,805.00	\$10,216.50	\$0.00	\$0.00	\$7,969.50	\$0.00	\$0.00	\$0.00		430	\$	76,556	\$	-	\$	-	\$	76,556
Task 4	Implementation Plan		60	60	100	60	0	0	30	120	0	0	430	\$	76,556	\$	-	\$	-	\$	76,556	
1	Implementing The Spaceport Facilities Layout Plan	Jacobs																				
2	Cost Estimating	Jacobs	60	60	100	60	0	0	30	120	0	0	430	\$	76,556	\$	-	\$	-	\$	76,556	
3	Check-In Meeting(s)	Jacobs																				
4	Final Documentation	Jacobs																				
Fee Totals			\$13,287.60	\$14,333.40	\$6,450.00	\$8,757.00	\$0.00	\$0.00	\$5,313.00	\$28,414.80	\$0.00	\$0.00		90	\$	19,193	\$	-	\$	-	\$	19,193
Task 5	PM/Prime Consultant/QC		18	0	0	0	0	0	0	0	54	18	90	\$	19,193	\$	-	\$	-	\$	19,193	
1	Monthly PM Planning	Jacobs	18	0	0	0	0	0	0	0	54	18	90	\$	19,193	\$	-	\$	-	\$	19,193	
2	QC at each Milestone	Jacobs																				
3	Ricondo SME	Ricondo																				
Fee Totals			\$3,986.28	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$10,526.76	\$4,680.00		1,720	295,987	4,013	0				300,000	
Grand Total			284	216	333	280	40	220	155	120	54	18	1,720	295,987	4,013	0						



The following invoices are presented to the Board for approval at the Regular Board Meeting being held October 20, 2022:

Arthur Dunn Airport

X21 – AWOS Replacement, Design, Bidding and Construction Services

Request #3 – AVCON, Inc. – (4/1/22 – 5/31/22) - **\$3,545.85**

Request #4 – AVCON, Inc. – (6/1/22 – 7/31/22) - **\$1,772.92**

Space Coast Regional Airport

TIX – Design & Construction VAC Taxi Lane & Apron

Request #6 – Carr & Collier, Inc. – (9/1/2022 – 9/30/2022) - **\$181,837.13**

TIX – Hangar 52 Demolition

Pay App #7 – Nautilus Earth Management – (11/15/2021 – 9/21/2022) - **\$24,251.66**

TIX – Fuel Farm Relocation

Pay App #6 - AVCON, Inc. – (8/1/22 – 8/31/22) - **\$11,276.87**

TIX – ATCT Design & Bidding

Pay App #6 - AVCON, Inc. – (8/1/22 – 8/31/22) - **\$9,986.23**

Merritt Island Airport

COI – AWOS Replacement, Design, Bidding and Construction Services

Request #5 – AVCON, Inc. – (8/1/22 – 8/31/22) - **\$1,900.57**

John Craig, Chairman

Roger Molitor, Secretary

Airport Project Updates

Legacy Projects

- TIX RWY 09/27 Rehab
- TIX Hangar 52 Demo
- TIX VAC Apron
- COI Corporate Hangar
- COI EA for Hangar Development
- COI NASI

PROJECT: RUNWAY 9-27 REHAB – SPACE COAST REGIONAL AIRPORT

BUDGET: \$3.8M (\$0 Local Match)

CURRENT STATUS: **Awaiting City of Titusville drainage permit, negotiating project with contractor.**

SCHEDULE: 10 MONTHS OF CONSTRUCTION PLUS 1 MONTH OF CLOSEOUT



PROJECT: HANGAR 52 DEMO – SPACE COAST REGIONAL AIRPORT

BUDGET: \$320K (\$64K LOCAL MATCH)

CURRENT STATUS: **Awaiting closeout documents from contractor.**

SCHEDULE: 1 MONTH CONSTRUCTION AND 1 MONTH CLOSEOUT



PROJECT: TCAA/VAC APRON AND TAXILANE – SPACE COAST REGIONAL AIRPORT

BUDGET: \$1.62M (\$0 LOCAL MATCH)

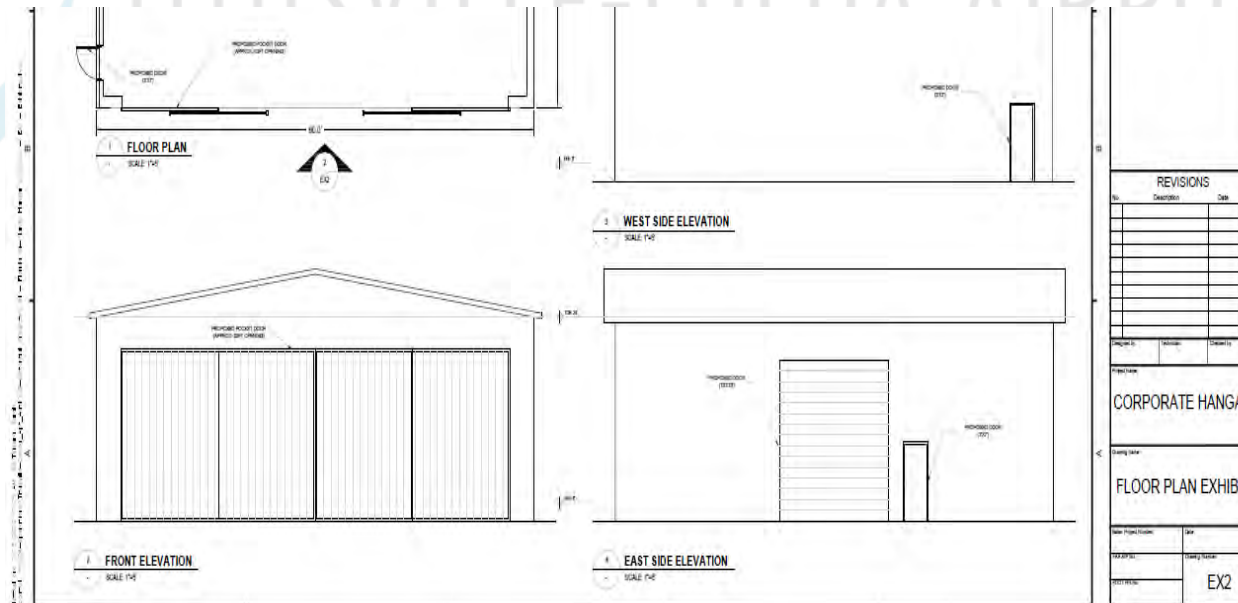
CURRENT STATUS: **Ramp paving completed, temp paint applied, sod and electrical done by this Friday.**

SCHEDULE: 8 MONTHS OF CONSTRUCTION PLUS 1 MONTH OF CLOSEOUT



BUDGET: \$700K (\$0 LOCAL MATCH)

SCHEDULE: 7 MONTHS OF CONSTRUCTION PLUS 1 MONTH OF CLOSEOUT

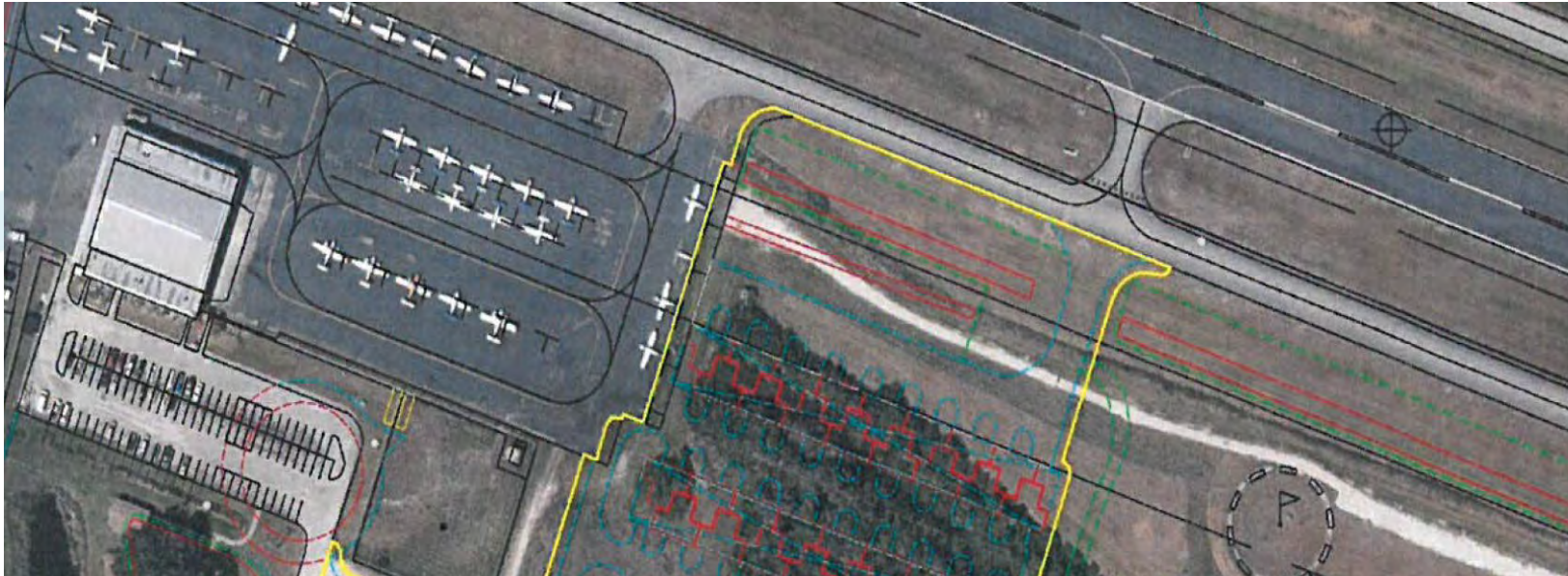


PROJECT: EA FOR T-HANGAR DEVELOPMENT – MERRITT ISLAND AIRPORT

BUDGET: \$269K (\$0 LOCAL MATCH)

CURRENT STATUS: PROJECT STARTED; EXPECTED COMPLETION IN LATE 2023; ON-GOING; FAA REQUIRING NOISE STUDY BUT NO ALP UPDATE; **Expected completion late 2023; revising alternatives to reflect adjacent private hangar development.**

SCHEDULE: 12 MONTHS IS BASED ON PUBLIC MEETINGS AND NOTICES REQUIRED BY THE FAA



PROJECT: NORTH AREA SECURITY AND INFRASTRUCTURE – MERRITT ISLAND AIRPORT

BUDGET: \$949K (\$189,800 LOCAL MATCH)

CURRENT STATUS: **Identified resolution with conflict on water line, dewatering will begin again Monday 10/17/22.**

SCHEDULE: 5 MONTHS OF CONSTRUCTION PLUS 1 MONTH OF CLOSEOUT



Airport Project Updates

New Projects

- X21 AWOS
- COI AWOS
- TIX ATCT Siting Study
- TIX Fuel Farm Relocation

PROJECT: Automated Weather Observation System (AWOS) Replacement – Arthur Dunn Airpark

BUDGET: \$365,000 (80/20 FDOT Grant)

CURRENT STATUS: Bids open in November.

SCHEDULE: Design will commence once the location is determined. Design and bidding is anticipated to take 90 days. Construction will commence upon award of bid. Equipment procurement is taking 6+ months from date of purchase.



CURRENT STATUS: Bids open in November.

SCHEDULE: Design will commence once the location is determined. Design and bidding is anticipated to take 90 days. Environmental permitting on the alternative site might take an additional 120 days. Construction will commence upon award of bid. Equipment procurement is taking 6+ months from date of purchase.

— TIX, COI, X21 —

CURRENT STATUS: Bids open in November.

SCHEDULE: Design will commence once the location is determined. Design and bidding is anticipated to take 90 days. Environmental permitting on the alternative site might take an additional 120 days. Construction will commence upon award of bid. Equipment procurement is taking 6+ months from date of purchase.

— TIX, COI, X21 —

CURRENT STATUS: Bids open in November.

SCHEDULE: Design will commence once the location is determined. Design and bidding is anticipated to take 90 days. Environmental permitting on the alternative site might take an additional 120 days. Construction will commence upon award of bid. Equipment procurement is taking 6+ months from date of purchase.

— TIX, COI, X21 —

CURRENT STATUS: Bids open in November.

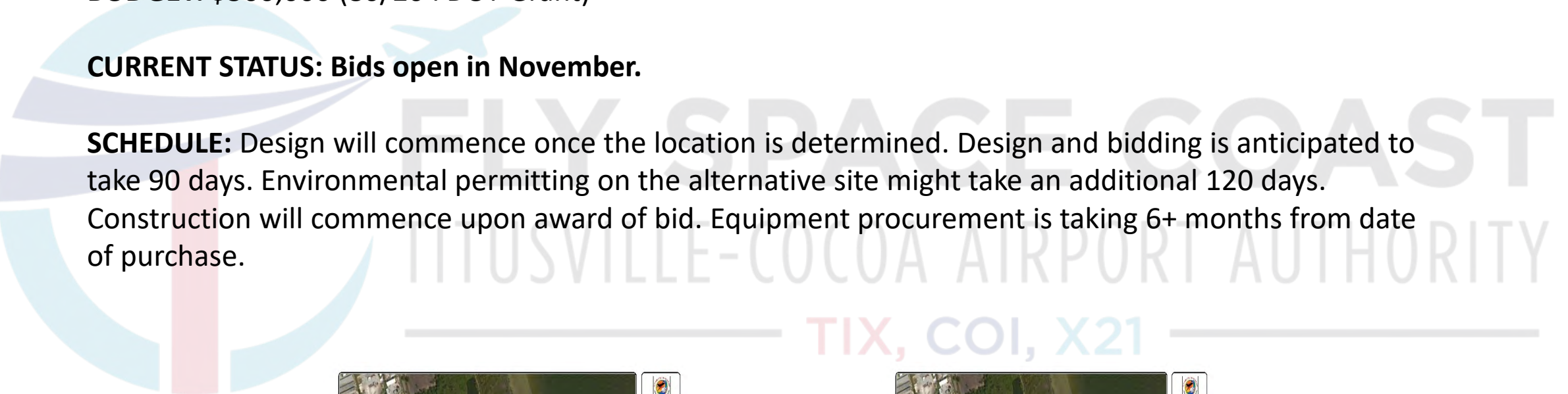
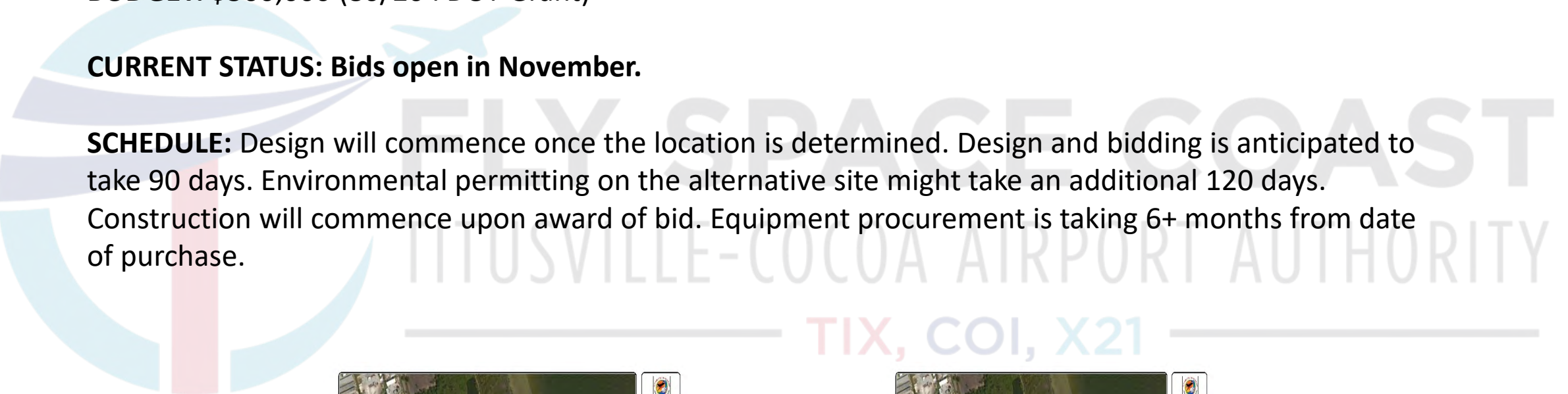
SCHEDULE: Design will commence once the location is determined. Design and bidding is anticipated to take 90 days. Environmental permitting on the alternative site might take an additional 120 days. Construction will commence upon award of bid. Equipment procurement is taking 6+ months from date of purchase.

— TIX, COI, X21 —

CURRENT STATUS: Bids open in November.

SCHEDULE: Design will commence once the location is determined. Design and bidding is anticipated to take 90 days. Environmental permitting on the alternative site might take an additional 120 days. Construction will commence upon award of bid. Equipment procurement is taking 6+ months from date of purchase.

— TIX, COI, X21 —



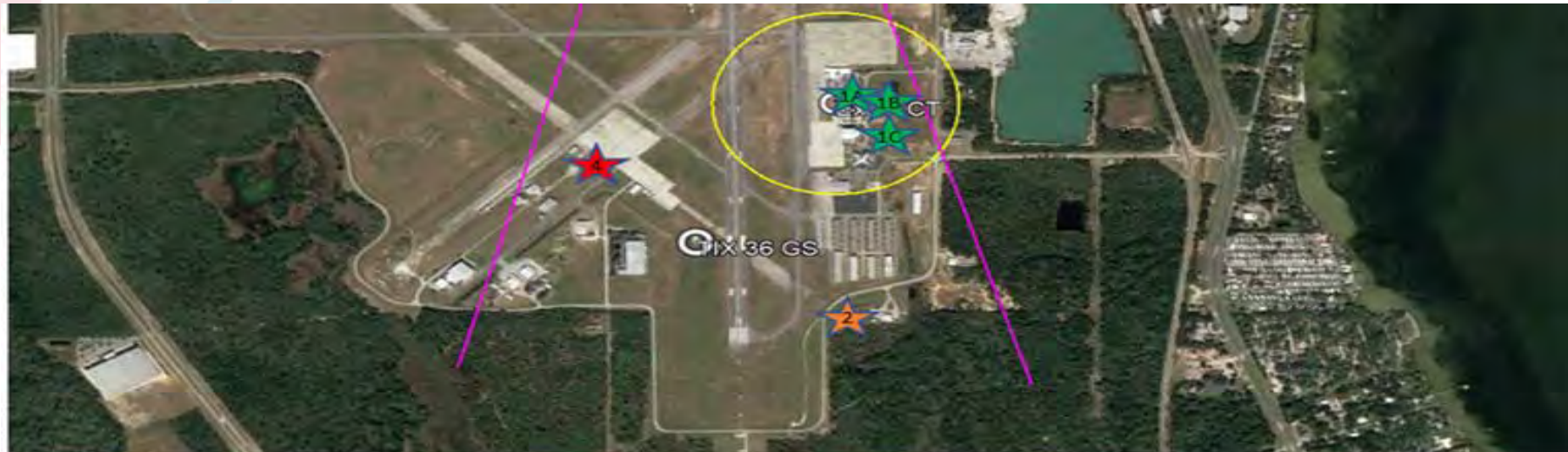
PROJECT: Design of the Replacement Airport Traffic Control Tower – Space Coast Regional Airport

BUDGET: \$960,000 (80/20 FDOT Grant)

CURRENT STATUS: Design is underway.

SCHEDULE: 12 months

FLY SPACE COAST
TITUSVILLE-COCOA AIRPORT AUTHORITY



PROJECT: Fuel Farm Relocation – Space Coast Regional Airport

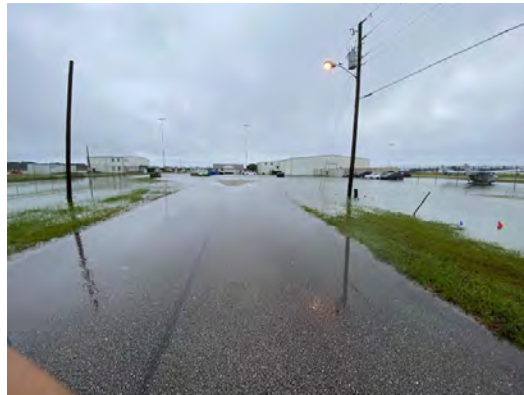
BUDGET: Current cost estimate is \$ 1.1m

CURRENT STATUS: Design is underway. 90% design October 14th. Working with FDOT on construction the funding.

SCHEDULE: 12 months



Hurricane Ian







October 13, 2022

Kevin Daugherty, AAE
Director of Airports
Titusville-Cocoa Airport Authority
51 Bristow Way
Titusville, FL 32780

Sent via email via kdaugherty@flyspacecoast.org

RE: Quarterly update on development activities through September 30, 2022

Dear Kevin,

The below is a summary update of activities undertaken since the consummation of the Lease between Space Coast Regional Airport (TIX) and Space Coast Innovation Park, LLC (SCIP).

Following the execution of the SCIP lease, the team contracted with and mobilized all professionals and subcontractors involved in performing pre-development studies of the Phase I, Phase II and Phase III Development Areas.

Predevelopment studies:

The following pre-development studies were performed for all three phases of the development area (450 acres):

- Natural Resource: wetlands delineation, threatened and endangered species study, and protected tree study
- Geotechnical Investigation: Preliminary evaluation of conditions within stormwater retention area, building footprints, and site infrastructure
- FAA Airspace Analysis: performed by professional aviation consultants to determine building restrictions
- Survey: Boundary and Topographic

The following pre-development studies advanced by SCIP were performed for Phases I and II of the development area (100 acres):

- Environmental: Phase I Environmental Site Assessment(s)
- Preliminary Civil Site Planning and Design of Phase I and Phase II

The following pre-development studies advanced by SCIP were performed for Phases III of the development area (350 acres):

- Conceptual site planning and coordination with TIX for roadway engineering

With the completed pre-development studies, we have been able to work with the Authority and our other adjacent stakeholders, in the enhancement of the overall development approach for the site infrastructure, stormwater retention areas, and conceptual site planning effort. As you are aware, our collective efforts have resulted in the following win/win results for the costs anticipated previously as follows:

- Reduction of the required public infrastructure costs to the Authority adjacent to Phases I and II including redesigning the stormwater management approach.



- Continue to reengineer the most efficient design of the Spaceport Connector Roadway while other stakeholders were in key negotiations with the Florida Turnpike Authority, FDOT and Space Florida regarding connection at State Route 407.
- Refine our permitting and project execution schedule to avoid and minimize impacts to natural resources such as wetlands.

All of the efforts above have not only created efficiency and cost savings for all parties, but are critical in being prepared to respond to development requests/requirements from end users that traditionally have aggressive schedules.

Development Activities completed and ongoing in Q3 2022:

The contracts with the architect, landscape architect, geotechnical and civil engineers for site plan and building design for Phase I have been executed and the concept site plans and engineering for Phase II and III continues to be refined.

- In mid-August, the team held a meeting at the City of Titusville with all staff to review the site plan for Phase I. Very positive feedback on the site plan.
- SCIP will be submitting the formal site plan for review by the City of Titusville on 11/4/22
- In early October, the water management design and construction permit was formally submitted for review for Phase I
- Water and sewer design and construction permit is anticipated to be submitted in early November
- Building permits are anticipated to be submitted for review to the agencies in March and April of 2023
- The FAA clearance and construction approval has been submitted to the agency.

The team is also working through early stage inquiries from users.

Stakeholder Coordination:

In addition to advancing these studies and releasing the full design and construction documents for Phase I SCIP including representatives from TCAA, have facilitated coordination meetings with Florida City Gas (NextEra), Florida Power and Light planning and economic development leaders, Brevard County Economic Development professionals, Florida East Coast Railway, Orlando Utility Commission and FDOT/Florida Turnpike officials to discuss the upcoming needs of the targeted industries/end users of SCIP. These meetings have been productive and are foundational in our coordination efforts moving forward.



Budget Update:

SCIP has currently committed \$2,300,000 in professional services for the above studies and civil site plan submittal design packages. Our team completed the studies on time and in budget, allowing us to proceed to contract with architect, landscape architect, geotechnical and civil engineers to complete the full site plan and building design and construction submittal package for Phase I..

Conclusion:

The SCIP team continues to advance the proactive, prepared, and proven development approach of working through the verified site-specific challenges to create an efficient site, but address the concerns and further the objectives, to the extent possible, of the greater community and Authority. Our efforts mirror the goals of a public private partnership with the Authority, as we continue to identify approaches in proceeding which will benefit our team, the identified end users, and the local corporate users that provide jobs and income into the local economy, as well as enhance the end goals of the Authority. This approach will lead to opportunities to expedite the design and development process and allow SCIP and our stakeholders the ability to remain reactive to market conditions that are outside our control.

Collectively, we are excited about the future of this development and positive impact it will have on the Authority operations and the community. We thank you for your continued partnership and support.

Sincerely,

Kathleen Yonce

Kathleen Yonce
Managing Member
Space Coast Innovation Park

Titusville-Cocoa Airport Authority
Check Register
For the Period From Sep 1, 2022 to Sep 30, 2022

Filter Criteria includes: Report order is by Date.

Check #	Date	Payee	Cash Account	Amount
40269	9/9/22	ACF Standby Systems, LLC	101000	747.00
40270	9/9/22	AT&T	101000	652.03
40271	9/9/22	A T & T	101000	57.49
40272	9/9/22	AVCON	101000	1,772.93
40273	9/9/22	AVCON	101000	1,689.40
40274	9/9/22	AVCON	101000	7,494.75
40275	9/9/22	Bound Tree Medical	101000	839.74
40276	9/9/22	City Of Titusville	101000	1,248.45
40277	9/9/22	CHLIC	101000	503.18
40278	9/9/22	Carr & Collier, Inc.	101000	260,157.50
40279	9/9/22	Culligan	101000	58.98
40280	9/9/22	Florida Alarm & Security Technologi	101000	109.50
40281	9/9/22	Florida Power & Light	101000	354.34
40282	9/9/22	Florida Power & Light	101000	1,591.74
40283	9/9/22	Home Depot Credit Services	101000	1,685.40
40284	9/9/22	Hangar Door Specialists, LLC	101000	11,240.00
40285	9/9/22	Judy Durette	101000	1,316.25
40286	9/9/22	Lowe's	101000	501.23
40287	9/9/22	Logical Decisions LTD	101000	1,386.25
40288	9/9/22	Lacey's Lock Service	101000	102.80
40289	9/9/22	Vantagepoint Transfer Agents-3033	101000	283.54
40290	9/9/22	NAPA Auto Parts	101000	496.84
40291	9/9/22	Personnel Concepts	101000	50.80
40292	9/9/22	Parks CDJR Space Coast	101000	132.80
40293	9/9/22	Riverside Landscape Contractors, In	101000	17,709.42
40294	9/9/22	Titusville Area Chamber of Commer	101000	100.00
40295	9/9/22	Thorne Site Development	101000	53,157.41
40296	9/9/22	Watkins Fuel Oil	101000	4,725.06
40297	9/9/22	Wolen, L.L.C.	101000	538.90
40298	9/9/22	Waste Management	101000	438.08
40299	9/9/22	Cynthia Lennard, CPA	101000	1,974.75
40300	9/9/22	Steve Diamond	101000	25.00

Titusville-Cocoa Airport Authority
Check Register
For the Period From Sep 1, 2022 to Sep 30, 2022

Filter Criteria includes: Report order is by Date.

Check #	Date	Payee	Cash Account	Amount
40301	9/9/22	Hung Dale	101000	25.00
40302	9/23/22	AT&T	101000	195.49
40303	9/23/22	AT&T Mobility	101000	350.24
40304	9/23/22	AVCON	101000	2,000.00
40305	9/23/22	321 Flags and Gifts, LLC	101000	186.30
40306	9/23/22	Brevard Uniform Co.	101000	181.76
40307	9/23/22	BBG, Inc.	101000	1,450.00
40308	9/23/22	Board Of Co. Commissioners	101000	14,554.98
40309	9/23/22	City Of Titusville	101000	276.43
40310	9/23/22	City Of Cocoa	101000	198.00
40311	9/23/22	CHLIC	101000	503.18
40312	9/23/22	Dish	101000	70.07
40313	9/23/22	Florida Dept Of Revenue	101000	550.00
40314	9/23/22	Florida Power & Light	101000	679.22
40315	9/23/22	Florida Power & Light	101000	634.86
40316	9/23/22	Florida Power & Light	101000	1,525.57
40317	9/23/22	Florida Power & Light	101000	2,859.65
40318	9/23/22	Florida Power & Light	101000	2,341.45
40319	9/23/22	Florida Power & Light	101000	1,491.59
40320	9/23/22	Florida Airports Council	101000	1,650.00
40321	9/23/22	Florida Coast Equipment	101000	2,435.19
40322	9/23/22	Florida Today #126281	101000	260.48
40323	9/23/22	Florida Alarm & Security Technologi	101000	161.00
40324	9/23/22	Faster Than Sound, Inc.	101000	3,560.00
40325	9/23/22	Konica Minolta Business Solutions	101000	595.51
40326	9/23/22	Logical Decisions LTD	101000	5,358.00
40327	9/23/22	Vantagepoint Transfer Agents-3033	101000	283.54
40328	9/23/22	NAPA Auto Parts	101000	51.25
40329	9/23/22	Robertson's Landscape	101000	7,500.00
40330	9/23/22	Ron Norris Buick GMC	101000	94.71
40331	9/23/22	St. Johns River Water Management	101000	1,190.00
40332	9/23/22	Standard Insurance Company	101000	685.36

Titusville-Cocoa Airport Authority
Check Register
For the Period From Sep 1, 2022 to Sep 30, 2022

Filter Criteria includes: Report order is by Date.

Check #	Date	Payee	Cash Account	Amount
40333	9/23/22	Southeast Services of CFL Inc.	101000	625.25
40334	9/23/22	Southern Janitor Supply and Servic	101000	313.62
40335	9/23/22	T's Handyman Service	101000	1,078.35
40336	9/23/22	Watkins Fuel Oil	101000	2,607.81
40337	9/23/22	Cynthia Lennard, CPA	101000	1,956.00
40338	9/23/22	Nautilus Earth Management, LLC	101000	24,251.66
40339	9/23/22	Michael Baker International	101000	4,100.00
40340	9/23/22	JJ Tippins	101000	75.00
Total				462,048.08



MEMORANDUM

PUBLIC MEETING DATE: October 20, 2022

TO: Titusville-Cocoa Airport Authority Board

FROM: Christina Kinard
Deputy Director of Finance & Administration

RE: Write-Off Bad Debts

Titusville-Cocoa Airport Authority respectfully requests approval to write-off a portion of the accounts receivable (AR) that is deemed to be not collectible.

The write-off recognizes that a portion of the AR is likely not collectible, but it does not prevent the Titusville-Cocoa Airport Authority from eventually collecting the receivable. TCAA is requesting approval to write-off up to \$105,512.74 in bad debts. The write-off affects only 8 inactive accounts, two (2) of which the hangar is locked and/or currently leased and the tenant cannot be contacted or found, one (1) of which the board agreed to terminate their lease, (1) of which the lease was never acted upon, two (2) airport storage tenants moved out and/or cannot be found or contacted, and two (2) airport storage tenants are deceased. This entry is requested to be made to ensure that TCAA's receivables are accurately reflected on the balance sheet.

ATTEST :

TITUSVILLE-COCOA AIRPORT AUTHORITY

JOHN CRAIG, CHAIRMAN

DONN MOUNT, VICE CHAIRMAN/TREASURER

Approved as to form and legality:

ADAM BIRD, AIRPORT ATTORNEY