GOAA Date: 08/21/24

ADDENDUM NO. 72
TO THE AGREEMENT DATED JANUARY 8, 2021
BETWEEN THE GREATER ORLANDO AVIATION AUTHORITY
AND RICONDO & ASSOCIATES, INC.

Project: **Professional Consulting Services for W-525 Airport Master Plan Update, Orlando International Airport**

THIS ADDENDUM is effective this 21st day of August, 2024, by and between the **GREATER ORLANDO AVIATION AUTHORITY** ("Aviation Authority"), and **RICONDO & ASSOCIATES, INC.** ("Consultant').

WITNESSETH:

WHEREAS, by Agreement dated January 8, 2021, Aviation Authority and Consultant entered into an agreement for Consultant to provide General Consulting services; and

WHEREAS, under the Agreement, Consultant agreed to perform such additional services for the Aviation Authority as are contained in any additional scope of work established by the Aviation Authority in any addendum to the Agreement and accepted in writing by the Consultant; and

WHEREAS, the Aviation Authority and the Consultant desire to enter into this Addendum to the Agreement to provide for additional services to be rendered by the Consultant under the terms of said Agreement.

NOW, THEREFORE, in consideration of the premises and the mutual covenants herein contained, the Aviation Authority and the Consultant do hereby agree as follows:

1. Consultant shall perform additional services in accordance with the terms of the Agreement and the attached Exhibit "A." Consultant shall be paid for such additional services according to the payment terms set forth in the Agreement.

2. Consultant shall be compensated for such additional services in the **NOT TO EXCEED amount of FOUR MILLION SEVEN HUNDRED NINETY-NINE THOUSAND FOUR HUNDRED EIGHTY-SIX AND 45/100 DOLLARS ($4,799,486.00),** broken down as follows:

Professional Fees:	**NTE:**	**$4,747,271.00**
Professional Fees:	**LS:**	**$0.00**
Reimbursable Expenses:	**NTE:**	**$52,215.00**
Total:		**$4,799,486.00**

3. A. Consultant hereby certifies that it is not on the Scrutinized Companies that Boycott Israel List and is not engaged in a boycott of Israel, as defined in Florida Statutes § 287.135, as amended;

AND

B. (applicable to agreements that may be $1,000,000 or more) - Consultant hereby certifies that it is: (1) not on the Scrutinized Companies with Activities in Sudan List or the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List as defined in Florida Statutes § 287.135; and (2) not engaged in business operations in Cuba or Syria, as defined in Florida Statutes § 287.135, as amended.

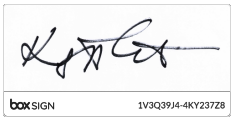
4. Aviation Authority may terminate the Agreement for cause and without the opportunity to cure if the Consultant is found to have submitted a false certification or has been placed on the Scrutinized Companies that Boycott Israel List or is engaged in a boycott of Israel.

In the event the Agreement is for One Million Dollars ($1,000,000.00) or more, Aviation Authority may terminate this Agreement for cause and without the opportunity to cure if the Consultant is found to have submitted a false certification or has been placed on the Scrutinized Companies with Activities in Sudan List or the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List or is engaged in business operations in Cuba or Syria.

5. Except as expressly modified in this Addendum, the Agreement dated January 8, 2021 and all prior addenda will remain in full force and effect.

IN WITNESS WHEREOF, the parties hereto by their duly authorized representatives, have executed this Addendum on this day of Aug 26, 2024.

GREATER ORLANDO AVIATION AUTHORITY



By: _____

Kevin J. Thibault, P.E.
Chief Executive Officer

Approved as to Form and Legality
(for the benefit of GOAA only)
this day of Aug 22, 2024



By: _____
NELSON MULLINS RILEY AND SCARBOROUGH, Legal Counsel
Greater Orlando Aviation Authority

RICONDO & ASSOCIATES, INC



By: _____

Signature (Duly Authorized Rep.)

Pete Ricondo

Printed Name

Senior Vice President

Title

GREATER ORLANDO AVIATION AUTHORITY
Innovation Connecting the World

Published By: Chr
Reviewed By:

CCM HANDOUT
8/6/2024
Item IV-E
Revised Full Item

MEMORANDUM

TO: Members of the Construction Committee

FROM: Brad Friel, Sr. Vice President of Multi-Modal Planning and Environmental

DATE: August 6, 2024

ITEM DESCRIPTION

Request for a Recommendation of Approval of an Addendum to the General Consulting Services Agreement with Ricondo & Associates, Inc. for W-00525 The Airport Master Plan Update at the Orlando International Airport (MCO).

BACKGROUND

In December 2020, Ricondo & Associates, Inc. was selected by the Aviation Authority Board through a competitive award process to provide General Consulting Services. Tasks are awarded on an as-needed or annual basis.

This no-cost base agreement established the negotiated hourly rates. The services provided as part of this agreement may include advising and supporting the Aviation Authority through assessments, studies, master planning, concept development, and preparation of design/build criteria packages, extension of staff, and other efforts as assigned for the development, management, and operation of the existing and future facilities. The services may also include interfacing with the Aviation Authority's committees and the Aviation Authority's departments, and coordinating and providing documentation required by federal, state, and local agencies including the Federal Aviation Administration (FAA); Transportation Security Administration (TSA); Florida Department of Transportation (FDOT); the Orlando Utilities Commission (OUC); the Division of Strategic Business Development; City of Orlando; Orange County, Florida; and, other agencies as required. The selected general consultant will be prohibited from providing preparation of construction documents, and Owner's Authorized Representative (OAR) Services for the Aviation Authority, and shall be precluded from submitting bids or proposals for any such services to the Aviation Authority.

ISSUES

The consultant's proposal dated July 31, 2024 is to assist the Aviation Authority in preparing an update to the airport Master Plan for the Orlando International Airport (MCO). The Master Plan Update (MPU) proposed in this scope of work will address the airport's developmental needs through the next twenty years to realize the Aviation Authority's long term strategic visions for serving its tenants, business, and community stakeholders. The scope of services described in the proposal includes the professional services and technical analyses required to successfully complete the MPU for the airport within the FAA and Florida Department of Transportation (FDOT) framework. The timing for the completion of the proposed tasks will be established at the start of the project and prior to conducting the Initiation Meeting. The task schedule for the MPU will be organized to ensure coordination between the airside, landside, and terminal facility analyses.

If approved, services will be effective the date of Aviation Authority Board approval.

EXHIBIT A

This continuing consultant was selected for this task based on:

☒ Experience	☐ Available Personnel	☒ Current Workload
☒ Expertise	☐ Equitable Distribution	☐ Other:_____

SMALL BUSINESS

The MWBE/LDB/VBE participation has been reviewed by the Office of Small Business Development. The findings and recommendation are attached.

ALTERNATIVES

None.

FISCAL IMPACT

Funding is from Line of Credit to be reimbursed by General Airport Revenue Bonds (GARBs)". Funding source verified by Melvin Martinez of Construction Finance on 08 / 05 / 24 as correct and available.

RECOMMENDED ACTION

It is respectfully requested that the Construction Committee recommend to the Aviation Board approval of an addendum to the General Consulting Services Agreement with Ricondo & Associates, Inc. for the services contained herein and amount as shown below:

Not to Exceed Fees	$4,747,271.00
Lump Sum Fees	$0.00
Not to Exceed Expenses	$52,215.00
TOTAL	**$4,799,486.00**
CRI – Compliance Review Date	JM 8/5/2024
CRI – Funding Eligibility Review Date	8/5/2024

Contingent upon CFOC Action

July 2024 | DRAFT

Orlando International Airport

Scope of Work: Orlando International Airport Master Plan Update

Prepared for:

Greater Orlando Aviation Authority

Prepared by:

RICONDO

In association with:

Carolyn Binder, CPA, LLC
Environmental Science Associates
GSS Creative
Quest Corporation
Illustrate My Design
KMI International
Martinez Geospatial
Wonderstruck

Ricondo & Associates, Inc. (Ricondo) prepared this document for the stated purposes as expressly set forth herein and for the sole use of Greater Orlando Aviation 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.

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INTRODUCTION

The following is a scope of work for Ricondo & Associates, Inc. (Ricondo) and its subconsultants to assist the Greater Orlando Aviation Authority (Aviation Authority) prepare an update to the airport Master Plan for the Orlando International Airport (MCO, or the Airport). The Master Plan Update (MPU) proposed in this scope of work will address the airport's developmental needs through the next twenty years to realize the Aviation Authority's long-term strategic visions for serving its tenants, business, and community stakeholders.

THE RICONDO PLANNING TEAM

The planning team (Ricondo Team) will include the following subconsultants, tasked with performing specified tasks contributing to the overall MPU – several of these firms are Disadvantaged Business Enterprise (DBE) firms, or companies that are part of the Aviation Authority's Local Developing Business (LDB) Program:

Carolyn Binder, CPA, LLC (DBE)

Carolyn Binder, CPA will be responsible for project control support services including budget tracking, progress reports, status updates, and coordination with the Aviation Authority staff for invoicing related matters.

Environmental Science Associates

Environmental Science Associates (ESA) will lead the development of the Environmental Overview, including the data collection and inventory of existing environmental conditions, leading the strategy workshop for compliance with the National Environmental Policy Act included in the scope of services, and the overview and review of environmental considerations that may be required for implementation of the MPU recommendations.

GSS Creative (DBE)

GSS Creative (GSS) will be responsible for graphic design components of project coordination meetings between the Ricondo Team and Aviation Authority, stakeholder engagement meetings, and final documentation.

Illustrate My Design (DBE)

Illustrate My Design (IMD) will prepare three-dimensional architectural renderings that will provide illustrative representations of the MPU's recommended improvements. IMD will also prepare a multi-media video of the holistic MPU recommendations for use by the Aviation Authority in future presentations and communications with airport stakeholders and the public.

KMI International (LDB)

KMI International (KMI) will provide rough order of magnitude (ROM) construction cost estimating services for the development alternatives analysis and preferred alternative.

Martinez Geospatial (DBE)

Martinez Geospatial (MTZ) will conduct ground survey services, photogrammetry, and AGIS services to collect, format, and deliver data according to the FAA AGIS program standards. MTZ will acquire new color aerial imagery of the airport and proximate area.

Quest *Corporation* of America, Inc. (DBE)

Quest Corporation of America, Inc. (Quest) will assist the Stakeholder Engagement task, which will consist of coordinating meetings and conducting surveys with the tenant and sub-tenant stakeholders as well as the local community and public.

Wonderstruct (*DBE*)

Wonderstruct will conduct an editorial and technical review of the draft and final report documentation summarizing the analyses and conclusions of the MPU.

BACKGROUND

The Master Plan Update is intended to establish a development framework for the airport focused on:

- Realizing the vision, goals, and objectives articulated in the Aviation Authority's 2023 Strategic Plan
- Improving connections through diversified and complementary forms of transportation and mobility by ground and by air
  - Reconfiguring landside and airside roadway networks as needed to improve access and airport-wide connectivity
  - Enabling infrastructure and airspace preservation for new vertical takeoff and landing aircraft
  - Preserving right-of-way and facilities for connecting MCO and community areas with mass, public, and/or autonomous ground-based transportation vehicles as well as pedestrian and active mobility access
- Evaluating synergistic development integrating transportation and non-aviation development
  - Creating opportunities to expand partnerships for desirable, mixed-use, and transit-oriented development along MCO's perimeter parcels
  - Adding amenities to serve general aviation users that could also serve the public and local communities
  - Increasing opportunities for emerging and local businesses to support regional growth at MCO
- Formulating a capital investment plan that provides access and utility infrastructure in support of commercial and economic development
  - Identifying future land uses for vacant and undeveloped land at MCO
  - Relocating facilities and functions to promote the highest and best use of land
- Preserving, restoring, and modernizing existing facilities while adding necessary assets
  - Reviewing safety risks and efficiency of the existing configuration of aprons/taxilanes, taxiways, holding pads, and run-up areas to consider future airfield modifications
  - Modernizing airfield lighting and navigational aids
  - Accommodating based aircraft requirements with fixed-based operator (FBO) facilities, apron, and other support/storage facilities
  - Determining remaining useful life and improving utilization of existing facilities

- Anticipating requirements for electrification, sustainable aviation fuels, autonomous vehicles, and other system/process innovations to improve MCO user experiences
  - Siting fuel storage and power generation facilities
  - Identifying charging infrastructure, parking, and right-of-way requirements for new vehicles
- Providing improved access to the Central Florida region

SCOPE OF SERVICES

The MCO MPU will be conducted in accordance with the Florida Department of Transportation (FDOT) Guidebook for Airport Master Planning as well as Federal Aviation Administration (FAA) guidance, including, but not limited to, the following Advisory Circulars (ACs):

- 150/5070-6B, Airport Master Plans
- 150/5300-13B, Airport Design
- 150/5300-16A, Aeronautical Surveys
- 150/5300-17C, Remote Sensing Technologies in Airport Surveys
- 150/5300-18B, Geographic Information System (GIS) Standards
- 150/5060-5, Airport Capacity and Delay
- 120-91A, Airport Obstacle Analysis
- 150/5360-13A, Airport Terminal Planning
- 150/5000-17, Critical Aircraft and Regular Use Determination
- 150/5325-4B, Runway Length Requirements for Airport Design
- 150/5220-17B, Aircraft Rescue and Fire Fighting (ARFF) Training Facilities

This MPU will include holistic analyses of existing Airport facilities, a review of recently completed studies/analyses, the development of aviation activity forecasts, which will be used to determine existing facility capacities/capabilities, and the identification of any deficiencies that the MPU may need to address to meet the airport's needs for the 5-, 10, and 20-year planning horizons.

To the extent practical or applicable, incorporate findings from recently completed (or underway) studies, including but not limited to the following:

- Consolidated Rental Car (CONRAC) Siting Analysis
- Baggage Handling System Strategy for Terminals A/B and Airsides
- North Terminal Capacity Analysis
- Parking Capacity and Pricing Analyses
- South Terminal Complex Phase 2 Project Definition
- North Terminal - Elevator/Escalator Capital Planning

- Land Use Planning Studies completed for MCO's underdeveloped parcels
- Information Technology (IT) Master Plan – being initiated in late 2024 or early 2025

The primary goals and objectives for the airport MPU include the following:

- Reassess forecasts of Airport activity including:
  - Review existing air service studies and analyze future air service opportunities
  - Conduct individual conference calls with airlines to understand their MCO air service strategy
  - Develop alternative demand scenarios to account for changes in factors that may affect activity, such as changes in the airline operating cost environment, potential new entrant airlines or new market opportunities, changes in service at competing airports, impacts associated with existing and future Brightline services to Miami and, potentially Tampa)
  - Develop future design day flight schedules to be used for the assessment of future facility requirements
  - Review new or emerging aircraft trends and technologies, such as urban air taxi, unmanned aircraft, and Boeing 777X, and assess potential impacts to existing operations and facilities.
- Assess future facility and infrastructure requirements:
  - Airfield: identify opportunities for improving airfield capacity and efficiency, as well as aircraft maneuverability; identify potential areas that do not comply with current FAA airfield design standards, with particular emphasis on mitigating runway incursion risks and existing modifications of standards, assess the need for a south crossfield taxiway.
  - Advanced air mobility: identify potential on-Airport locations for a facility that could handle vertical takeoff and landing (VTOL) aircraft and assess the impact(s) on existing operations and airspace surfaces.
  - Airspace: establish requirements and potential impacts associated with eVTOL operations
  - Terminal: assess terminal gate capacity and requirements, quantify the facilities that will be needed to achieve the LOS goals and operating requirements at demand levels correlating to the forecast airline flight schedules for the base year and successive planning horizons. Establish a framework for the implementation of new terminal/gate facility development and the redevelopment, or replacement, of aging (existing) terminal/gate facilities.
  - Roadway: develop VISSIM simulation model for the airport to assess roadway and curbside operations and identify congestion points, establish curbside and roadway requirements, incorporate findings from the CONRAC siting study
  - Parking: quantify the existing public parking demand based on multiple scenarios that consider growth of transportation network companies (TNCs) and ride-sharing, autonomous vehicles, trends in private vehicle ownership, introduction of public transit–oriented infrastructure (e.g., Sunrail)
- Use dynamic simulation modeling for assessing improvements to the passenger terminals and landsides.
- Identify development/improvement alternatives for the existing terminal complex facilities (e.g., security screening checkpoint [SSCP] improvements, ticketing level improvements, baggage handling level repurposing, baggage drop alternatives, alternatives to traditional check-in desks, etc.).

- Develop landside alternatives for each landside element (i.e., terminal curb, commercial vehicle operations, employee/public parking, rental cars, cell phone waiting areas).
- Establish demand triggers and timelines for the procurement, design, and construction of Terminal C Phases 2 and 3 and Terminal D
- Develop/update rough-order-of-magnitude (ROM) cost estimates for the projects to be included in the airport's Capital Improvement Program (CIP) for the 20-year planning horizon.
- Identify potential effects to key environmental categories (e.g., wetlands, threatened and endangered species and habitat, air and water quality, hazardous waste) as the result of implementing the proposed CIP and other Airport enhancements
- Complete Airport Layout Plan (ALP) in adherence with SOP 2.00, Standard Procedure for FAA Review and Approval of ALPs, and other applicable FAA ACs and guidance. The survey data to be collected as part of this task will be formatted into compliant Airports-GIS format and submitted to the FAA Airport Data and Information Portal (ADIP) portal.

The following scope of services describes the professional services and technical analyses required to successfully complete the MPU for the airport within the FAA and Florida Department of Transportation (FDOT) framework. The timing for the completion of the proposed tasks will be established at the start of the project and prior to conducting the Initiation Meeting. The task schedule for the MPU will be organized to ensure coordination between the airside, landside, and terminal facility analyses.

1. PROJECT INITIATION AND ADMINISTRATION

Ricondo will serve as the Prime Consultant for the MCO MPU and will assume the lead responsibility for the timely, high-quality, on-budget delivery of the MPU deliverables. Ricondo will also ensure the underlying technical analyses are performed in accordance with the contractual requirements specified in the General Consulting Contract between Ricondo and the Aviation Authority. Ricondo will oversee and manage the work performed by the various subconsultant team members (collectively referred to as the Ricondo Team) and provide direction and guidance, as necessary, to ensure consistency among the Team's study activities and work products.

Table 1-1 below summarizes the type and number of meetings anticipated to occur periodically throughout the MPU's duration, anticipated to span approximately 30 months from the date the Initiation Meeting is held until the Airport Layout Plans set is submitted to the FAA for its review and approval. A more detailed description and summary of the project management and coordination activities that will be provided by Ricondo as part of the MCO MPU are included in the following subtasks.

TABLE 1-1 PROJECT INITIATION AND ADMINISTRATION MEETINGS

TARGET AUDIENCE AND MEETING PURPOSE	ON-SITE VS. VIRTUAL	NUMBER OF MEETINGS	ANTICIPATED MEETING DURATION (EACH MEETING)	NUMBER OF RICONDO TEAM PARTICIPANTS
Aviation Authority / Initiation Meeting	On-Site	1	1 hour	4
Aviation Authority / Leadership Team Meeting	On-Site	8	1 hour	3
Ricondo/Aviation Authority Project Coordination Meeting	On-Site	24	1 hour	2
Ricondo Team Project Coordination Meeting	Virtual	30	1 hour	3
Aviation Authority / Ancillary Meetings	On-Site	6	1 hour	2

SOURCE: Ricondo & Associates, Inc., August 2024.

1.1 INITIATION MEETING

The Ricondo Team will convene an Initiation Meeting with Aviation Authority staff - participation to be coordinated with the Aviation Authority's designated (internal) Project Manager (PM). The purpose of the meeting will be to provide a high-level review of the scope of services, identify the general types of information needed and methods of collection proposed, review the general project schedule, and identify immediate next steps. The Initiation Meeting will also provide an opportunity for Aviation Authority staff to identify specific issues of concern, challenges, or constraints that may warrant consideration in the MPU. The Initiation Meeting will be attended by up to three Ricondo Team members.

1.2 PROJECT COORDINATION MEETINGS

This task includes the coordination efforts associated with regularly scheduled meetings with the Aviation Authority's PM and/or other key staff, as well as internal coordination meetings among the Ricondo Team. It also includes potential ancillary client coordination meetings (Task 1.2.4) for additional meetings with Authority staff that may be requested by the Aviation Authority's PM.

1.2.1 AVIATION AUTHORITY LEADERSHIP TEAM COORDINATION MEETINGS

In addition to the meetings listed in the subsequent tasks below, the Ricondo Team (Client Officer/PM, and/or Deputy PMs) will conduct up to eight (assumed to be one per quarter) coordination meetings with the Leadership

Team, comprised of the Aviation Authority's Chiefs and Senior Vice Presidents (as requested) to review the project status, schedule, progress and results, ongoing study activities, anticipated challenges, or issues. Meetings may occur by teleconference or Microsoft Teams but are anticipated to typically be in-person/on-site. An agenda will be prepared to support each meeting.

1.2.2 RICONDO/AVIATION AUTHORITY COORDINATION MEETINGS

The Ricondo Team (Client Officer/PM and/or Deputy PMs) will conduct monthly coordination meetings with the Aviation Authority's Planning Team (as requested) to review the project status, schedule, ongoing efforts, anticipated challenges, or issues. Meetings will typically occur in-person and may align with other project meetings and activities. Up to 24 monthly status meetings are anticipated during the MCO MPU (starting at Task 2 and continuing through the remainder of the MPU). These coordination meetings will be attended by up to two Ricondo Team members. An agenda will be prepared to support each meeting.

1.2.3 RICONDO TEAM COORDINATION MEETINGS

In addition to the coordination meetings with Aviation Authority staff, monthly teleconference coordination meetings will be held among the Ricondo Team members to review the status and progress of each task, schedule, and budget performance, as well as to resolve potential administrative or technical issues. Up to 30 monthly teleconferences are anticipated during the MCO MPU.

1.2.4 ANCILLARY CLIENT MEETINGS

This task comprises a budget allowance for additional meetings with Aviation Authority staff that are not included in the previous two subtasks that may be requested by the Aviation Authority's PM. Meetings will address supplemental coordination meetings or matters that may arise that would impact the MPU scope and schedule or require immediate attention. These briefings would be conducted at the discretion of the Aviation Authority's PM. Depending on the nature of these meetings, the Ricondo Team may be responsible for preparing meeting materials and preparing and distributing meeting notes. Up to six (6) ancillary client coordination meetings are anticipated during the MCO MPU. For budgeting purposes, it has been assumed that two members of the Ricondo Team would attend these meetings.

1.3 PROJECT SCHEDULE DEVELOPMENT AND ADMINISTRATION

At the onset of the MCO MPU, Ricondo will prepare a task schedule for the MPU. The schedule will be provided to the Aviation Authority's PM for review and approval prior to conducting the Initiation Meeting. Throughout the project, Ricondo will monitor and maintain the schedule and, if necessary, issue adjustments as required (no more than three updates are anticipated and included in the budget for this task). Ricondo will also prepare task authorizations, prepare invoices and supporting status reports, and perform related activities as part of the project administration.

1.4 RICONDO / GREATER ORLANDO AVIATION AUTHORITY SECURED DATA EXCHANGE PLATFORM

To facilitate the transfer of data between the Aviation Authority and the Ricondo Team, a secured data exchange platform will be established. Ricondo will work with Aviation Authority staff to define a platform (site) for exchanging electronic data files and deliverables throughout the MCO MPU. The site will be used exclusively for uploading and downloading data files and will be accessible by both the Aviation Authority staff and the Ricondo Team. The site will be password-protected.

2. INVENTORY OF EXISTING CONDITIONS

The Ricondo Team will collect data and prepare an inventory of the MCO's facilities and supporting infrastructure that will describe their functions and physical attributes. The collected data and information will be used to define the baseline conditions from which subsequent master planning analyses will be conducted. This information will also be used to identify relevant facility relationships and Airport-specific facility planning ratios.

This scope of work assumes the Ricondo Team would validate the existing airfield, landside, and support facility conditions using existing data from readily available data sources, such as record drawings, previously completed studies, and FAA publications. Prior or ongoing studies and project data will be utilized and Airport improvements, either planned or being constructed/implemented will be treated as an existing condition, as requested by the Aviation Authority. Supplemental data needs or data gaps will be fulfilled through field/site visits and observations, departing passenger survey, tenant surveys, and Aviation Authority interviews by members of the Ricondo Team.

This task will culminate with the development of an Inventory Working Paper that shall be submitted to Aviation Authority staff for review and comments. The working paper will ultimately become a stand-alone chapter in the Final Master Plan Update Report. A more detailed description and summary of the various subtasks included in the formulation of the MCO Master Plan Update Inventory are prescribed in the following subtasks.

2.1 TENANT SURVEY

The Ricondo Team will conduct an online Airport-tenant survey to notify tenants of the master planning effort and gather high-level operational, functionality, and physical information on currently occupied facilities. The survey's purpose is to collect quantitative and qualitative data not available from Aviation Authority sources. The tenant survey responses will be incorporated into the Existing Conditions Working Paper. The Ricondo Team will prepare a draft survey for review/approval by the Aviation Authority's PM.

For budgeting purposes, this proposal is based on the following assumptions:

- A list and electronic contact information of tenants and holders of commercial operating permits will be provided by the Aviation Authority.
- The survey will be administered using a web-based platform (e.g., SurveyMonkey) for approximately 30 days (to be confirmed during survey preparation).
- Separate surveys may be conducted with the following tenants due to the specific nature of their information:
  - Airline tenants
  - Rental car operators/tenants
  - General aviation tenants and Fixed Based Operators (FBO)
  - Air cargo operators/tenants
- Up to two electronic invitations/outreaches to tenants will be made to encourage responses.

2.2 PASSENGER INTERCEPT SURVEY

Originating passenger intercept surveys would be conducted at Airsides 1 through 4, and Terminal C, with oversight by Ricondo staff. The intercept survey is intended to gain information about originating passenger behavior and preferences to support subsequent terminal modeling efforts prescribed herein. Ricondo will prepare a list of preliminary questions to include in the survey and review with the Aviation Authority's PM prior to conducting the survey. To the extent possible, response options to questions will be provided to maintain uniformity and ease of recording responses by the interviewer.

The originating passenger intercept surveys would be conducted over a consecutive five-day period, with a survey team comprised of surveyors from Quest Corporation and surveyors from Ricondo to oversee the data collection effort. Surveys would be collected using handheld tablets which will be rented from a vendor for the duration of the survey data collection days of this task. Ricondo would also provide instruction and assist observers and surveyors in using the mobile applications. Ricondo staff will be on site over the five-day survey period with the following responsibilities:

- Provide survey instrument
- Schedule and train surveyors
- Monitor and augment surveys throughout the day
- Collect and validate sample intakes

2.2.1 DEVELOP SURVEY INSTRUMENT

Measurable passenger travel characteristics that influence the service/operational patterns or the capacity of existing facilities will be identified so these can be considered in the evaluation of requirements for future facilities. An on-site survey comprising questions that will aid in the identification of passenger characteristics and passenger/tenant issues as they relate to the current airport facilities and service levels will be developed. The surveys will also be structured to provide background data relative to travel origin/destination, reason for travel, mode of accessing terminal, arrival earliness distribution, etc. This scope of work includes the translation of the English survey instrument into up to three (3) other languages, to be determined in consultation with Aviation Authority staff.

The survey planning effort will include coordination of the survey effort with the local airline station managers, terminal operations, Transportation Security Administration (TSA), and Aviation Authority staff. It will also include the development of the survey instruments approved by the Aviation Authority, the production of informative signage for use during the survey effort, and the badging of the survey teams, if necessary.

2.2.2 CONDUCT SURVEYS AND COMPILE DATA

The survey team will consist of surveyors from Quest Corporation. Ricondo will also be on-site to provide instruction and assist in using the mobile applications. The surveys will be conducted at Airsides 1 through 4 and at Terminal C.

The surveys will be conducted as one-on-one interviews between individuals from the survey team and passengers. This work element also includes compiling data into an Excel database, preparing summary charts and graphs displaying the survey results, and preparing a PowerPoint presentation that can be used to share the survey results with internal and external stakeholders.

2.2.3 SUMMARY OF RESULTS

This work element includes the compilation of data associated with the passenger intercept surveys into an Excel database, the preparation of summary charts and graphs displaying the survey results, and the preparation of a PowerPoint presentation that can be used to share the results of the survey with MCO stakeholders.

2.3 COLLECT AND REVIEW EXISTING REPORTS, STUDIES, AND DATA SOURCES

Previous planning, environmental, and other issue-specific studies, base mapping, site plans, and other pertinent materials will be gathered and reviewed to confirm their continued validity. Federal and State aviation plans, local reports and studies pertaining to the airport's planning and development will be reviewed. These studies will provide essential background and reference information to enhance the understanding of airport activities and facilities, as well as provide insight into relevant planning issues. Relevant information from these documents will be cited in the final master plan report. These will include documents such as, but not limited to the following documents:

- Current Airport Layout Plan and Narrative Report
- Current Capital
- Improvement Program
- Current Land Use Plans
- Current Terminal Floor Plans
- 2023 Strategic Plan
- North Terminal Vision and Refresh Studies:
  - North Terminal Vision
  - Concessions Master Plan
  - Facilities Capacity and Condition Assessment
  - Baggage Handling Strategy
  - Near-Term Refresh
  - Consolidated Rental Car Facility Planning
  - Airside 2 / Airside 4 APM Replacement
  - Vertical Circulation Capital Improvement Program
- South Terminal Expansion Studies:
  - Phase 1X Design/Construction
  - Phase 2 Program Definition Document
  - Near-Term Roadway Analysis
  - Consolidated Rental Car Facility Planning / APM Extension
- FAA Air Traffic Standard Operating Procedures
- FAR Part 139 Certification Manual

- Historical Operational Statistics
- Pavement Conditions Index and Maintenance Program Reports
- Previous MCO Airport Master Plan
- Previous or On-going Facility Inventory and/or Condition Assessments
- Vehicle and Equipment Inventories and Procurement Plans
- Recent Air Service Studies
- Recent NEPA Documents, Drawings, and Databases
- Sustainability Baseline data/reports and Plans
- Stormwater / Deicing Management Program Reports
- Tenant Leasehold Drawings and Space Allocations
- Utilities and Stormwater Infrastructure Atlas/GIS Database

2.4 INVENTORY OF AIRFIELD AND AIRSPACE CONDITIONS

The Ricondo Team will document the existing airfield and airspace conditions, including facility locations, types, and sizes; levels of service; and procedures.

The Ricondo Team will refer to collected documents, airport records provided by the Aviation Authority, and tenant surveys to inventory the existing facilities, procedures, and operating conditions of the airfield and airspace. The Team will conduct one (1) site visit at the direction of the Aviation Authority to record supplemental observations and verify information.

2.4.1 AIRFIELD INFRASTRUCTURE

Present conditions of the existing airfield system will be collected and documented, such as: runway and taxiway geometry, pavement strengths, obstacle and obstruction information, NAVAIDs, operational restrictions, runway and taxiway centerline clearances, deviations from FAA design standards, and other pertinent airfield information. The existing conditions will assume future Airport Layout Plan (ALP) elements that are being phased for implementation in future years – the resulting layout will constitute the baseline airfield conditions for the Master Plan Update. Other on-going or near-term improvements (physical or operational) being considered by the Aviation Authority and reflected in the airport's CIP, but not necessarily depicted on the ALP will be incorporated, as appropriate, based on discussions with Aviation Authority Staff.

The inventory of airfield infrastructure will include the following components:

- Runways
- Taxiways
- Aprons, aircraft parking, pads, and run-up areas
- Airfield lighting, navigational aids, and equipment shelters
- Airside roadways
- Air operations area perimeter fencing and access

- Airport design surfaces (e.g., safety and critical areas)
- Airspace surfaces
- Fixed-base operator (FBO) lease areas, structures, and site conditions
- Hangars

2.4.2 AIR TRAFFIC CONTROL PROCEDURES

The Ricondo Team will review and document the existing air traffic control (ATC) procedures for MCO's airspace and airfield and will coordinate with MCO ATC tower personnel and/or Aviation Authority staff to review the following data and information.

Terminal Airspace Infrastructure and Procedures:

- Arrival and Departure Fixes
- Arrival and Departure Routes
- Airfield Operating Configuration (Runway) Utilization
  - Flow Directions
  - Weather Factors
  - Runway Allocation Strategies

Special Operations (if applicable and impacting airfield capacity):

- Rotorcraft Procedures
- Aircraft Maintenance Operations

Runway Operations:

- In-Trail Separation Standards
- Departure, Arrival, and/or Mixed Mode Throughput
- Runway Dependencies (if applicable)
- Weather Minima

Airfield Ground Movements:

- Taxi Flows
- Runway Exit Utilizations
- Runway Occupancy Times
- Stand/Ramp Allocation Strategies and Utilization
- Pushback Procedures/Strategies
- Runway Crossing Procedures

Noise abatement procedures and ATC responsibilities will also be documented. Interviews with ATC tower personnel will be conducted to gather pertinent information related to MCO operations, including but not limited to runway use, runway balancing, runway blocking time/distance, and taxiway routing commonly used. The Ricondo Team will conduct field observations (up to 16 hours) from the ATC tower and/or ramp towers of airfield operations to ensure

a full understanding of baseline operation conditions, if required. Access to airfield surveillance systems could be used to collect some data without requiring on-site observations. These observations will include airfield taxi patterns, runway use, taxiway use, terminal pushback operations and other related air traffic control procedures.

2.4.3 METEOROLOGICAL DATA COLLECTION AND ANALYSIS

The Ricondo Team will collect and analyze 10 years of historical wind and weather data from the National Ocean and Atmospheric Administration Climatic Data Center. Ceiling height, visibility, wind speed and direction will be analyzed to develop wind roses, assess existing wind coverage, and determine the percentage of observations in visual and instrument meteorological conditions. Wind roses will be prepared for all-weather, visual, and instrument meteorological conditions at MCO. The wind roses will be published in on the Data Sheet of the Airport Layout Plan.

2.5 INVENTORY OF AIRLINE TERMINALS AND GATES

The inventory of terminals and gates will be used to develop the future requirements of the master plan. A baseline condition will be established during this task, including existing conditions and ongoing and/or pending terminal improvements. The existing terminal facilities inventory will reflect the improvements underway, if any, based on information to be provided by the Aviation Authority. Ricondo Team members will meet with the Aviation Authority and representatives of the various ongoing terminal programs to understand the proposed improvements and timing of improvements and to establish the conditions that will serve as the baseline for MCO's MPU.

2.5.1 EXISTING FACILITIES AND FUNCTIONAL AREAS

The Ricondo Team will collect and composite floor plans of the Terminals and Airsides provided by the Aviation Authority or its consultants to represent the baseline condition. The composited floor plans will be prepared in AutoCAD or Revit format and will contain the following information:

- Room/space labels indicating high-level information about a tenant or function name
- Holdroom spaces will be labeled according to the supported numbered gate(s)
- Floor plans will identify rooms/spaces according to major functional categories using color fill or hatching. Major functional category areas will be labeled by functional name and area square footage. The major functional categories will be agreed upon in advance with Aviation Authority staff but typically are as follows:
  - Airline facilities
  - Department of Homeland Security
  - Commercial Programs
  - Airport and Other Agencies
  - Automated People Movers
  - Building Services
  - Other Common Spaces
- Floor plans will illustrate and provide counts of the following fixtures/equipment to the extent shown on CAD files:
  - Check-in counters, self-serve check-in units, kiosks, curbside counters, and baggage take-away conveyors
  - TSA Security screening lanes: queue configuration; travel document check podiums

- X-ray machines and roller beds; secondary inspection tables
- AIT/walk-through metal detectors and law enforcement officer/TSA stations
- Baggage carousels/piers located in domestic bag claim, airline
- Outbound/inbound bag operations areas
- Explosive Detection System (EDS) machines; checked baggage reconciliation areas
- Federal Inspection Services (FIS) facilities: passport document kiosks;
- Primary inspection officer booths/podiums; bag claim carousels;
- Secondary inspection tables/equipment; exit control podiums;
- International baggage unloading piers and transfer make-up areas; airline
- Connecting passenger service counters

Tabulation of terminal space inventory will be developed separately for each Terminal and Airside using Microsoft Office Excel The Ricondo Team will review the assembled space plans and interpretation of space functions and functional categories with Aviation Authority staff for accuracy.

The Ricondo Team will collect data on the MCO facilities/resources, passenger characteristics, and processing times. Static data will be collected from the Aviation Authority (flight schedules, CAD files), airline input (e.g. airline policies), passenger intercept surveys, and on-site observations. The data items to be collected include:

- number of processors/resources at each area of interest
- gate use policies and practices (use of spare gates, buffer times between flights at each gate, etc.)
- gate capabilities
- airline passenger facility-use characteristics
- schedule characteristics prepared by Ricondo (load factor, origination percentage per flight)
- flight schedules
- AutoCAD files of the Terminals and Airsides

2.5.2 TERMINAL DATA COLLECTION AND OBSERVATIONS

Ricondo will manage, assist, synthesize, and document observations of terminal operations at MCO. The purpose is to identify current metrics regarding passenger attributes, preferences and processing rates. The Terminal data collection activities will ultimately include the following:

- Observations of passenger and baggage check-in operations
- Observations of International Operations

The collection of observation data will be performed concurrently over a consecutive five-day period with oversight by Ricondo staff. Ricondo staff will be on site over the five-day period with the following responsibilities:

- Provide data collection instrument
- Schedule and train observers
- Monitor and augment data collection efforts throughout the day

- Collect and validate sample intakes

2.5.2.1 OBSERVATION OF CHECK-IN OPERATIONS

In-terminal check-in operations will be observed. Observations of check-In operations will sample passenger utilization of different check-in options, number of bags checked and transaction rates. The final list of observations to be collected will be developed in collaboration with Aviation Authority staff. Observations as proposed are the following:

- Number of passengers using the offered check-in channels
- Group transaction times
- Staffing data
- Group size
- Checked bags per passenger

Conduct Observations and Compile Data

The survey team will be comprised of observers from The Ricondo Team. Ricondo will also be on-site to provide instruction and assist in using the mobile applications. The nature of check-in operations typically allows observers to monitor multiple simultaneous transactions. The observation will be conducted within the terminal check-in lobbies area to obtain a representative sample of passengers at MCO.

2.5.2.2 OBSERVATION OF INTERNATIONAL OPERATIONS

In-terminal international operations will be observed for the North Terminal and Terminal C FIS facilities. Observations of international operations will sample passenger utilization of different primary processing options, the number of bags checked, and transaction rates. The final list of observations to be collected will be developed in collaboration with Aviation Authority and CBP staff. Observations as proposed are the following:

- Number of passengers using the offered primary channels
- Group transaction times
- Staffing data
- Group size
- Checked bags per passenger
- Passenger's use of carts
- Baggage Delivery times

Conduct Observations

The survey team will be comprised of observers from The Ricondo Team. The observations will be conducted within the international bag claim hall.

2.5.2.3 SUMMARY OF RESULTS

This work element also includes the compilation of data associated with each of the observations described in the previous subtasks into an Excel database, the preparation of summary charts and graphs, and the preparation of a PowerPoint presentation that can be used to share the results of the data collection effort with internal and external stakeholders.

2.6 INVENTORY OF LANDSIDE FACILITIES

Landside facilities were extensively studied as part of the Surface Transportation Master Plan, the ConRAC site selection and Program Criteria Manual, the Terminal C Phase 2 PDD, the North Terminal Complex capacity assessment, and other existing and relevant studies. As such, the assessment of MCO's existing landside facilities, including on-Airport roadways, terminal curb, on-Airport rental car facilities, public and employee parking, cell phone waiting areas, and vehicle staging areas (taxis, limousines, TNCs), will be limited to the review and validation of existing conditions based on prior and/or ongoing studies, projects under design or construction, and prior data collection efforts.

2.6.1 ACCESS AND ON-AIRPORT ROADWAYS

Each on-Airport roadway not located within MCO's airside operations area (AOA) will be inventoried in coordination with the Mobility Master Plan (Task 5). This will include documenting existing roadway characteristics and intersection geometries. The roadway improvements (physical or operational) documented in prior studies such as the Surface Transportation Master Plan or other studies and reflected in the airport's CIP will be documented, as appropriate, based on discussions with aviation Authority staff. These planned improvements will reflect a baseline condition for subsequent master planning analyses. Landside roadway pavement condition reports will also be obtained and summarized accordingly if available.

2.6.2 TERMINAL CURBS

As part of this task, the Ricondo Team will document and adopt the recommendations from the Surface Transportation Master Plan, the Terminal C Phase 2 PDD and other prior terminal curb studies, as available, to document physical features of the existing curbside roadways and the latest information pertaining to the future curbside roadways, including the following:

- summary table listing the number of lanes at the terminal curbs (drop-off and by-pass lanes)
- summary table listing the various mode types utilizing terminal curbs
- length of curb allocated to various mode types
- operational environment on the terminal curbs and any management plans

Every effort will be made to utilize available recent traffic count information provided by the Aviation Authority or others, including data from passenger intercept surveys, the Easter Week traffic counts conducted by the Aviation Authority, or data available from the FDOT. Traffic data collection efforts will be coordinated with the Mobility Master Plan (Task 5). In addition, the Ricondo Team may conduct the curbside-specific classification counts and dwell time surveys to support subsequent curbside analyses in this scope.

2.6.3 REGIONAL GROUND TRANSPORTATION SYSTEMS

The Ricondo Team will develop an inventory of existing conditions for regional (off-Airport) transportation systems and initiatives using existing data from readily available data sources. Regional access to the airport will be documented to consider the existing origin points, interconnectivity of the interstate highway systems, proximity of the existing and planned railroads for passenger services, bus routes, and other access routes to the airport.

The Ricondo Team will review any regional projects or proposals from the FDOT or other agencies that will impact vehicle flows at the airport. The Ricondo Team will also incorporate transportation plans from other transit agencies, such as Sunrail, and including both rail and bus services. To document existing and proposed regional transportation systems, the Ricondo Team will meet with local/regional transportation agencies, including the following:

- FDOT
- Orange County
- City of Orlando
- MetroPlan Orlando
- Sunrail
- Brightline
- Lynx

For budgeting purposes, it has been assumed that the Ricondo Team would conduct one meeting with each agency – seven (7) meetings in total. These meetings would last up to 2 hours. For each meeting, the Ricondo Team will prepare agendas, discussion materials, sign-in sheets, and meeting notes.

2.6.4 PUBLIC AND EMPLOYEE PARKING

The Ricondo Team will compile existing parking capacity, layout plans, activity data (e.g., parking transactions and revenues by duration, parking lot occupancies, including peak daily occupancy, parking entries/exits, and space counts), revenues by parking facility, and other information required to document the inventory of public and employee parking facilities.

2.6.4.1 PUBLIC PARKING

The following data will be compiled as needed to supplement information collected as part of recently completed studies:

- Layout of public parking facilities, including access points, revenue control plazas, etc.
- Current physical capacity (spaces) of each parking facility, physical limitations (e.g., vertical clearance), and the approximate number of spaces impacted by these limitations within the parking structures.
- Current parking rate structure and any rate changes that have occurred over the past 5 years, by lot, for each parking facility.
- Annual gross revenue for the last five (5) years for each parking facility.
- Daily peak occupancy counts and overnight occupancy counts by facility for the most recent 36-month period for each parking facility.
- Hourly entry and exit reports by facility for the most recent 36-month period for each parking facility.
- Monthly parking transactions and revenues by duration category (e.g., 0 to 1 hour, 1 to 2 hours, 2 to 3 hours) for the most recent 12-month period for each parking facility.
- Closure and diversion data for each parking facility.
- Any information pertaining to cost elasticity of demand for parking, including changes in utilization data for periods preceding and following parking rate changes at the airport.
- Other available prior reports or analyses related to public parking demand and revenue.
- Name, location, capacity, and peak utilization (if known) of all off-Airport parking operators.
- Operating and maintenance (O&M) costs include shuttle bus operations, parking facilities, parking garage, and surface lots.

- Available capital cost information for recent parking facility development, as available.

2.6.4.2 EMPLOYEE PARKING

The following employee parking data will be gathered as available:

- Layout of existing non-tenant facility employee parking spaces by location
- Overnight and peak non-tenant facility employee vehicle accumulation during a typical busy week by parking location (If available, the Aviation Authority will provide occupancy counts for periods during which employee parking entry/exit counts are being obtained.)
- a list of on-Airport tenants (e.g., cargo, FAA, other) within the study area, the number of employees (total and by shift), number of parking spaces on each site, and parking passes issued.
- Number of parking permits issued by the Aviation Authority and fees paid
- Parking closure and diversion data for individual facilities as recorded for one calendar year

2.6.5 RENTAL CAR FACILITIES

In 2023, the Aviation Authority undertook a site selection and planning study for a potential future ConRAC, culminating in a Program Criteria Manual for a ConRAC at Terminal C. The Ricondo Team will incorporate this study and update facility record drawings to document existing conditions as necessary. The information obtained from prior studies will be reviewed and updated as necessary for inclusion in the MPU's inventory of existing conditions. The following rental car information will be validated and summarized:

- Existing rental car facilities information, including layout plans, space allocation plans, customer service areas, ready/return spaces, vehicle storage and staging areas, vehicle service facilities, and ground access to and from these facilities.
- Historical rental car activity data covering a 3-year (minimum) to 5-year (maximum) period (gathered from the Aviation Authority and rental car companies serving MCO).
- Information available from past studies, financial data (e.g., historical gross revenues), and activity levels (e.g., monthly rental car transactions and hourly transactional data).

A questionnaire or survey requesting supplemental facility and transaction information may be used to gather information from each rental car company. Questionnaire forms or surveys will be provided to the Aviation Authority for review prior to distribution to each rental car company.

2.6.6 TAXIS/TNCS/CELL PHONE WAITING AREAS

The areas designated for the staging of taxicabs and TNC vehicles and cell phone waiting areas will be inventoried. The overall size and configuration of each lot, along with supporting facilities and infrastructure, will be documented. The vehicular parking/staging capacities and general conditions of the existing facilities will be noted. The Ricondo Team will also interview Aviation Authority staff and users to identify any known deficiencies within the existing facilities and identify any pending enhancements or modifications. Entry/exit data would also be collected to establish peak 30-, 45-, and 60-minute demand. Entry/exit counts at the existing cell phone waiting lot will be collected via ATRs or video cameras to establish baseline usage in the lot. Absent available data from the Aviation Authority, entry/exit counts at the existing TNC and taxicab staging areas will be collected via ATRs or video cameras.

2.7 INVENTORY OF CARGO FACILITIES

Existing reports and other available information will be utilized to inventory the existing on-Airport cargo facilities, along with on-site/field inspections and, if necessary, discussions with the individual tenants as well as the Aviation Authority's Assistant Vice President for Cargo. The Ricondo Team will document the existing facilities, their size, use, site conditions, access, general building condition, and any existing operating conditions that need to be considered from a capacity in the Master Plan Update. Existing air cargo facilities and infrastructure will be inventoried, including:

- Cargo processing facilities:
  - Belly cargo buildings with ramp access
  - Cargo buildings with adjacent aircraft parking
  - Freight forwarder facilities
- Other air cargo support facilities:
  - Specialized cargo support
  - Government office facilities
- Cargo ramp areas and aeronautical access
- Landside trucking and automobile facilities:
  - Truck docks
  - Truck maneuvering and queuing
  - Customer parking
  - Tenant parking

2.8 INVENTORY OF GENERAL AVIATION FACILITIES

Existing general aviation (GA) tenant facilities at MCO comprise of two fixed base operators (FBOs): Signature Flight Support and Atlantic Aviation. There are currently no other GA tenants on the airport. Existing reports and other available information will be utilized to inventory the existing FBO facilities, along with on-site/field inspections and discussions with the individual tenants. The Ricondo Team will document existing support facility information concerning:

- Facility size and use
- Site conditions
- Airside and landside access
- General building condition
- Facility utilization, ramp utilization, and capacity estimates based on GA tenant input
- Planned improvements
- Applicable design guidelines (if any)

Site visits to the FBO's will be arranged to conduct this inventory. It is anticipated that up to two (2) site visits (3 hours in duration each) to GA facilities may be needed to interview stakeholders, gather additional information,

and/or validate facility information. Direct coordination and discussions with GA tenants concerning data collection will be at the discretion of the Aviation Authority. Specific GA facilities to inventoried include:

- Hangars and ramp areas
- Fuel storage facilities
- Customer/visitor and employee vehicle parking areas
- Facility landside and airside access
- Other GA supporting facilities (tenant storage, maintenance, etc.)

2.9 INVENTORY OF SUPPORT FACILITIES

Existing reports and other available information would be utilized to inventory the existing and planned airline and airport support facilities, along with discussions with the individual tenants. The Ricondo Team would document information concerning:

- airline support facilities:
  - aircraft maintenance, repair, and overhaul (MRO) facilities (as applicable)
  - flight kitchen and airline provisioning
  - ground service equipment storage and maintenance
  - triturators
  - aircraft fueling facilities and infrastructure
- airport support facilities:
  - maintenance and equipment storage
  - Aviation Authority Office, Storage, Warehouse and Support Spaces for Administrative, Maintenance, and Operations Functions
  - Airport Communications Center
  - aircraft rescue and firefighting (ARFF)
  - airfield electrical vaults
  - security and police
  - consolidated receiving and distribution facility
  - FAA facilities (including ATCT)

other on-Airport facilities – for example, the Emergency Operations Center.

2.10 INVENTORY OF SURROUNDING LAND USES

Ricondo will collect and examine the existing land uses within the MCO environs. Land use data will be obtained from the City of Orlando and Orange County, as well as the other surrounding municipalities within five miles of the airport property boundary. In addition, existing land uses will be verified through aerial photographs, field investigations, and research of previous environmental documents.

2.11 INVENTORY OF ENVIRONMENTAL CONDITIONS

The Ricondo Team will assemble existing documentation and mapping of environmental resources at MCO and the surrounding environment, as well as provide an initial assessment of their influence on Airport development. The environmental conditions inventory of the Airport environs will include data collection necessary to identify current environmental features on and directly adjacent to MCO that should be considered to impact or influence the location, configuration, or viability of development recommended in the Master Plan. The Ricondo Team will review the Airport environs for environmental resources identified in FAA Order 1050.1F, *Environmental Impacts: Policies and Procedures*, that may be present at or within the vicinity of the Airport. Features to be identified may include water resources (e.g., streams, wetlands, floodplains, and coastal zones), historic or cultural resources, natural communities and vegetative associations, threatened and endangered species, and other features or groups of features that may influence the development and operation of Airport improvement projects.

To the extent possible, available data from previous studies, and information easily accessible from prior MCO studies, Aviation Authority mapping, agencies, and other public sources, will be relied upon as the basis for this effort. This task does not include field visits or surveys for data collection. This task also does not include air quality emissions or noise modeling. The Ricondo Team will review recent environmental studies conducted at MCO made available by the Aviation Authority such as prior National Environmental Policy Act (NEPA) documents, other environmental documentation such as the Airport's Wildlife Hazard Management Plan, and natural resource mapping maintained by the Aviation Authority and/or its contractors. As an example, the Ricondo Team will coordinate with Aviation Authority's environmental contractor responsible for maintaining wetland mapping and permitting status and/or receive wetland mapping from the Aviation Authority .

The existing environmental conditions will include an exhibit of mapped resources for consideration during the development of Master Plan Update alternatives.

2.12 INVENTORY MEETINGS

For the completion of this task various meetings with select Aviation Authority staff, tenants, and users will be required. For each meeting, Ricondo will prepare agendas, discussion materials, sign-in sheets, and meeting notes. **Table 2-1** summarizes the number of meetings anticipated for each Inventory subtask.

TABLE 2-1 INVENTORY OF EXISTING CONDITIONS: MEETINGS

COORDINATING ENTITY/SURVEY	ASSOCIATED SUBTASK	ON-SITE VS. VIRTUAL	NUMBER OF MEETINGS/SURVEYS	ANTICIPATED MEETING DURATION (EACH MEETING)	NUMBER OF RICONDO TEAM PARTICIPANTS
FAA ATCT / Airfield Observations	Airfield	On-Site	1	16 hours	2
Aviation Authority – Airside Operations	Airfield	Virtual	1	2 hours	2
Aviation Authority / Terminal Site Visit	Terminal	On-Site	1	16 hours	4
Aviation Authority – Operations/Planning	Terminal/ Landside	Virtual	2	2 hours	3
Transportation Security Administration (TSA)	Terminal	Virtual	1	2 hours	2
Customs and Border Protection (CBP)	Terminal	Virtual	1	2 hours	2
Aviation Authority / Check-in Observations	Terminal	On-Site	1	24 hours	4
Aviation Authority / Originating Passenger Survey	Terminal	On-Site	1	40 – 56 hours	8
Aviation Authority – Landside Operations / Public Parking Management	Landside	Virtual	1	2 hours	2
Local/Regional Transportation Agencies and Transportation Providers	Landside	On-Site	7	2 hours	2
Aviation Authority – Environmental/Sustainability	Environmental/ Sustainability	Virtual	1	2 hours	2
Cargo Carriers	Cargo	Virtual	Up to 3	2 hours	2
Fixed Base Operators	GA	Virtual	2	2 hours	2
Manufacturing, Repair, and Overhaul (MRO) Facility Operator	Support	Virtual	Up to 3	2 hours	2
ARFF Chief / Personnel	Support	Virtual	1	2 hours	2
Aviation Authority – Maintenance Department	Support	Virtual	1	2 hours	2
Fuel Farm Operator	Support	Virtual	1	2 hours	2
Flight Kitchens / Commissary	Support	Virtual	Up to 3	2 hours	2
Airport Security / Police	Support	Virtual	1	2 hours	2

NOTES:
ATCT – Air Traffic Control Tower
ARFF – Aircraft Rescue and Firefighting
SOURCE: Ricondo & Associates, Inc., August 2024.

2.13 DRAFT INVENTORY WORKING PAPER

An Inventory Working Paper will be prepared to summarize the existing conditions at MCO airport (facilities, infrastructure, and operating environment). The existing conditions will reflect MCO as it existed, with planned improvements known as of the start of the MPU. Given the duration of the MPU, it is not uncommon for some conditions (such as tenant and airline composition at the airport, rates and pricing structures, or other airport characteristics) to change over time during the MPU duration. This scope of services does not include a comprehensive update of the inventoried conditions and the Inventory Working Paper upon completion of the MPU, as part of the final documentation task, to reflect the existing conditions in place that may have changed between the time the MPU started and when the MPU is completed.

A preliminary draft version of the Working Paper will be submitted to the Aviation Authority for review and comments. The review and comment process for the Inventory Working Paper will incorporate two revision rounds: (1) preliminary draft for Aviation Authority review and comment, and (2) final draft for Aviation Authority review and comment. The second round of comments/revisions will be incorporated into the draft chapter and then remain until final comments are solicited at submission of the draft Master Plan Update Report.

INVENTORY OF EXISTING CONDITIONS: SUMMARY OF DELIVERABLES

TABLE 2-2 INVENTORY OF EXISTING CONDITIONS: DELIVERABLES

DELIVERABLES	ELECTRONIC VS. HARD COPY	NUMBER OF COPIES
Draft Tenant Survey/Questionnaire	Electronic	N/A
Draft Originating Passenger Intercept Surveys	Electronic	N/A
Summary of Results for the Passenger Intercept Surveys and Terminal Observations	Electronic	N/A
Preliminary Draft Existing Conditions Working Paper for Aviation Authority Review and Comment	Electronic	N/A
Final Draft Existing Conditions Working Paper for Aviation Authority Review and Comment	Electronic	N/A
Final Inventory of Existing Conditions Chapter	Electronic	N/A

NOTE:
N/A – Not Applicable
SOURCE: Ricondo & Associates, Inc., August 2024.

The inventory task will be split into two phases: an *initial phase* and a *documentation phase*. The initial phase will commence at the start of the Master Plan and will be conducted in parallel to Task 3 (*Aviation Activity Forecasts*). The documentation phase will be deferred and will run parallel to Task 4 (*Demand/Capacity and Facility Requirements Analysis*). This will ensure that subsequent tasks can be initiated when the appropriate data is available and eliminate the risk of delays associated with the inventory documentation.

- **Initial Inventory Phase – Data Collection, Analysis, & Development of Basemaps:** The initial phase will commence at the initiation of the Master Plan and will include the activities relating to data collection, basemap development, and other activities that will inform future tasks. In this phase, the Ricondo Team will also coordinate and conduct the tenant survey, passenger intercept survey, and other on-site data collection efforts.
- **Existing Conditions Inventory Documentation Phase – Production of Deliverables:** The deliverables associated with Task 2, including the *Summary of Results for the Passenger Intercept Surveys and Terminal Observations* and the *Inventory of Existing Conditions Working Paper* will be produced and delivered to the client in this phase, which will commence in parallel to Task 4 (*Demand/Capacity and Facility Requirements Analysis*).

Items of Work <u>Not</u> Included in Scope:

- Development of simulation models for airfield, terminal, and landside functions (will be performed during subsequent tasks associated with the Master Plan Update)
- On-site/field verifications of all data provided for use in this Master Plan Update, unless otherwise noted in this task's scope of work.

- Determination and/or field verification of existing utilities and facilities, including water distribution, fire, sanitary sewer, electrical, communication and gas for relocation replacement
- Aerial mapping, topographical surveys, and obstruction surveys (will be performed during subsequent tasks associated with the Master Plan Update)
- Airspace obstruction analyses are to be performed during subsequent tasks associated with the Master Plan.
- Traffic counts or observations, unless otherwise noted in this task's scope of work.
- Environmental field surveys or mapping curbside surveys, including recording of curb dwell times
- Comprehensive update of the Inventory Working Paper to reflect changed conditions between the end of the MPU and the start of the MPU that do not have a material effect on the resulting MPU recommendations.

3. AVIATION ACTIVITY FORECASTS

The Ricondo Team will prepare forecasts of aviation activity suitable for identifying triggers for additional expansion (e.g., future expansions to the Terminal C and other justified improvements for the airport). The forecasts of future aviation activity will provide the basis for evaluating the adequacy and limitations of the existing Airport facilities. These forecasts will also provide activity metrics used with other portions of the MPU to determine the need, timing, and extent of future Airport facility development. Forecasts of aviation activity will provide information pertaining to passenger air carrier, cargo air carrier (aircraft operations and tons carried), general aviation (GA), and military users. Detail of local and itinerant operations will be provided, as will detail surrounding passenger metrics (domestic, international, origin and destination [O&D], and connecting). Additionally, projections will be developed for based aircraft and fleet mix by airplane design group, identifying the critical aircraft for each planning period. Forecasts and projections to be developed in this task include:

- annual enplaned passengers (and total passengers) with detail of international versus domestic and O&D versus connecting
- annual aircraft operations by type (air carrier, cargo, GA)
- annual air cargo tonnage
- annual based aircraft
- peak month and peak month average day metrics for enplaned passengers by type (domestic, international, O&D, connecting), aircraft operations by source (air carrier, cargo, GA), and cargo tonnage
- peak-hour forecasts and design day flight schedules
- critical aircraft (existing and future)

Forecasts of aviation activity would be developed on an annual basis through fiscal year (FY) 2050 using FY 2024 as the base year of activity. The resulting forecasts will be compared to the Federal Aviation Administration's (FAA's) most current Terminal Area Forecast (TAF) for MCO, and any discrepancies will be resolved with the airports District Office (ADO) and Office of Aviation Policy and Plans, as necessary, to facilitate the FAA's review and approval of the forecasts for planning purposes.

3.1 FORECAST DATA COLLECTION

The forecast process would begin with a comprehensive collection of data and information pertinent to activity at the airport and across the industry. Data would be collected from a variety of sources, including the Aviation Authority, commercial data providers, airlines, and industry groups for information related to:

- enplaned passengers (broken down by flight segment and airline)
- origin and destination (O&D) and connecting enplaned passengers, including total path of travel, identification resident and visitor O&D passengers, and airfare
- cargo volumes (belly and freighter)
- passenger aircraft operations
- all-cargo, GA, charter, and military aircraft operations

- fleet mix and fleet plan information
- historical patterns of usage at the airport, including by time of day and day of week
- socioeconomic data (historical and projected) for various geographic regions served or potentially served by the airport
- reports, studies, or other analyses of historical and/or future activity at MCO or across the industry

Sources of this information may include the following:

- Airport activity records
- US DOT and FAA databases and forecasts
- Sabre Market Intelligence
- aircraft fleet reports (to include current and future profiles)
- published schedule data
- Woods & Poole Economics, Inc., socioeconomic data
- airline reports and public statements
- Visit Florida, Visit Orlando, and Florida Commerce reports

3.2 MARKET ASSESSMENT AND REVIEW OF FACTORS AFFECTING AVIATION DEMAND

Collected information pertinent to MCO would be analyzed and summarized for the purpose of identifying key trends, drivers, and other factors affecting activity at the airport, which would ultimately be used to inform subsequent forecasts of future activity.

3.2.1 REVIEW FACTORS INFLUENCING FUTURE ACTIVITY LEVELS

Ricondo would research and analyze elements traditionally used to inform future activity levels specific to the airport, including the following:

- near-term airline network or capacity changes identified in published schedules
- statistically generated predictive relationships between passenger/cargo demand and socioeconomic drivers
- assessment of Airline Service Patterns and Activity levels at MCO for the 2017-2024 period to better understand the patterns and sources of passenger growth at the airport
- evidence of leakage of passenger and cargo demand to or from MCO
- analysis of airline shares and share trends, as well as consideration of the sustainability of those trends based on airline profitability analysis
- assessment of international passengers traveling to and from MCO through different U.S. gateways.
- analysis of changes in the segmentation of passengers and different rates of growth of resident and visitor O&D passengers
- Discussion with the Aviation Authority's air service team to understand opportunities for increased international service.

- airline business model evolution and success
- Airline fleet disruptions that may have affected demand at MCO
- patterns of GA use at MCO and surrounding airports, as well as emerging trends in GA and business aviation that may affect activity at MCO
- changes in the regulatory environment, including impacts of market liberalization that may occur between regions during the forecast period
- major infrastructure, tourism, or economic development projects or constraints (e.g. gates) that may affect activity at MCO

3.2.2 REVIEW EXISTING AIR SERVICE STUDIES AND ANALYZE FUTURE AIR SERVICE OPPORTUNITIES OR RISKS

As part of the market assessment, the Ricondo Team would review available recent studies (within the past 5 years) of air service potential undertaken by the Aviation Authority. The results of these studies may be used to inform the short- and/or long-term forecasts, peaking metrics, and related deliverables. Ricondo would also independently evaluate air service opportunities and risks at MCO to determine possible areas of future air service growth or reduction. Areas of evaluation would include the following:

- Likely markets for new air service by region, airline, and individual route based on anticipated growth and an assessment of unserved or underserved demand.
- Identification of existing markets likely to support incremental growth.
- Key factors influencing airline service decisions in relation to the opportunities.
- Identification of at-risk capacity currently flying from the airport and potential risks posed by air service changes at competing airports.

The results of this subtask would be used to inform the forecasts of aviation activity and related work; they are not expected to represent a comprehensive air service development effort.

3.2.3 CONDUCT INDIVIDUAL AIRLINE CONFERENCE CALLS OR MEEETINGS

Ricondo would work with Aviation Authority staff to coordinate and conduct individual interviews with airline staff from up to 12 of the airport's airlines to inform and validate the market assessment. The purpose of these interviews would be to solicit airline input on network plans specific to the airport (to the extent airlines are willing to share plans confidentially), as well as to obtain feedback on other findings in the market assessment. It is assumed that these meetings will be conducted by either video conference or conference call.

3.2.4 CONDUCT INDIVIDUAL CARGO CARRIER CONFERENCE CALLS OR MEEETINGS

Ricondo would work with Aviation Authority staff to coordinate and conduct individual interviews with staff from up to 4 of the airport's cargo carriers to inform and validate the market assessment. The purpose of these interviews would be to solicit input on network plans specific to the airport (to the extent they are willing to share plans confidentially). It is assumed that these meetings will be conducted by either video conference or conference call.

3.2.5 ANALYZE IMPACT OF GROWTH IN BRIGHTLINE AND OTHER RAIL SERVICE ON REGIONAL AIR SERVICE DEMAND

The recent implementation of Brightline high-speed rail service at MCO (and planned future connection to Tampa), has the potential to have a significant influence on passenger activity and preferences in the State of Florida. The addition of new and enhanced rail service can increase accessibility to the airport, reduce travel times, and attract a broader catchment area of passengers. The Ricondo Team will evaluate the impacts of existing and anticipated rail service on air service passenger activity and will inform the forecasts of aviation activity and guide related strategic planning efforts.

3.2.6 ANALYZE IMPACT OF ADVANCED AIR MOBILITY / EVTOL OPERATIONS ON AIR SERVICE DEMAND

The integration of Advanced Air Mobility (AAM) and electric Vertical Take-Off and Landing (eVTOL) technology at MCO has the potential to influence passenger activity and travel preferences in the State of Florida, while offering new opportunities for urban and regional connectivity. The Consultant Team will evaluate the potential impacts of the implementation of AAM and eVTOL operations on air service passenger activity, informing the forecasts of aviation activity and guiding related strategic planning efforts.

3.3 BASELINE ACTIVITY FORECASTS

Using the findings of the market assessment, the Ricondo Team would develop a baseline activity forecast, as well as a baseline high scenario, to estimate the range of growth from the base year FY 2024 through 2050. A baseline low scenario will be developed by the Aviation Authority's Finance Department/Team (as a separate effort – i..e. not part of this MPU scope of services) and will be incorporated into the MPU. The baseline low scenario will be used for financial analysis undertaken by the Aviation Authority to assess the affordability of the MPU recommendations and associated capital projects, taking into consideration the Aviation Authority's overall CIP.

The baseline activity and the baseline high scenario forecasts would model activity for the various types of users of the airport—passenger carriers, all-cargo, GA, and military. Forecasts would be developed with transparent assumptions and inputs to facilitate downline adjustments and alternative scenario development.

3.3.1 PASSENGER FORECASTS

Forecasts of passenger volumes would entail different methodologies for two separate time periods: the short-term (FY 2025 to FY 2030) and the medium- to long-term (FY 2027 to FY 2050).

3.3.1.1 SHORT-TERM PASSENGER FORECASTS (FY 2025 – FY 2030)

The short-term forecast analysis would incorporate statistical prediction methods, and it would also rely on airline industry guidance of available capacity and schedules, which is more reliable for the initial years in this time range. Published future schedules (up to one year) would be analyzed and adjusted for historical completion performance and load factor trends to generate forecasts of both passenger volumes and passenger aircraft operations for the airport for the first future year of the forecast (through FY 2025). For subsequent years through FY 2030, a bottom-up analysis of service to MCO would be developed, providing estimates of passenger and revenue growth derived through regression analysis techniques at the market level (or market grouping, if necessary, for more meaningful analysis) for O&D and connecting passengers (as applicable). The bottom-up analysis would aggregate passenger growth at the flight segment level, would include an analysis of available and likely fleet available during the period, and would result in both a passenger volume and operations forecast.

3.3.1.2 MEDIUM- TO LONG-TERM PASSENGER FORECASTS (FY 2031 – FY 2050)

For the long-term forecast, predictive statistical relationships identified between passenger volumes and socioeconomic factors would be used in conjunction with independent third-party projections of socioeconomic factors to estimate long-term growth across broader passenger groupings (domestic, international, resident O&D, visitor O&D, and connecting). In addition to these predictive relationships, the analysis would consider the influence of airline business models, fuel prices, passenger fares, airline costs, and other findings from the market assessment, which are likely to influence long-term passenger volumes.

3.3.2 CARGO VOLUME FORECASTS

The Ricondo Team would develop cargo volume forecasts based on predictive relationships (regression-based or other, as appropriate) identified between cargo demand and trade/production-related variables. This analysis would be complemented by a prospective analysis of the key market drivers and by an assessment of the potential impact of other factors characterizing the airport's business environment that are not factored in the regression-based forecasts. Assumptions surrounding these input factors and influences would be adjusted for the baseline high and low scenarios. Forecast elements would include enplaned and deplaned air cargo volumes, with analysis of the following characteristics of the MCO cargo market:

- passenger (belly cargo) and all-cargo (freighter) carrier groups
- domestic and international cargo volumes

3.3.3 BASELINE AIRCRAFT OPERATIONS FORECASTS

Forecasts of aircraft operations would be developed for passenger, all-cargo, GA, and military activity for the baseline scenarios.

3.3.3.1 PASSENGER AIRLINE OPERATIONS FORECASTS

Short-term passenger airline operations forecasts would be derived as explained in the short-term passenger forecast process. The long-term passenger operations forecasts would be informed by the forecasts of passenger volumes, which would be further categorized by airline (or airline grouping), considering trends in individual airline growth, network development, and insights into airline business strategies and profitability performance. In addition, possible new nonstop route opportunities would be estimated by year according to the growth of the individual passenger elements (O&D and connecting by market or region) and estimates of passenger levels that would be needed to support new nonstop market service.

Estimates of future aircraft availability would be developed considering specific airline order and retirement announcements, publicly available fleet plans, historical average aircraft capacity growth trends, and other information sources. Fleet estimates would be combined with passenger forecasts, load factor trends, and the new market analysis to derive forecasts of annual passenger aircraft operations.

3.3.3.2 CARGO OPERATIONS FORECASTS

The cargo operations forecasts would be informed by forecasts of cargo, freight, and mail volumes for the airport apportioned to all-cargo services (rather than to combination services). Similar to the passenger operations forecast process, future fleet plans of all-cargo operators would be created to understand how cargo, freight, and mail would be carried to and from the airport. Trends in volumes carried by fleet type/size would be analyzed and used in conjunction with fleet forecasts and total forecast volumes to derive the all-cargo operations forecasts.

3.3.3.3 GENERAL AVIATION AND CHARTER OPERATIONS FORECASTS

Historical GA and charter operations (if charter data are available) at the airport would be analyzed in conjunction with historical trends in socioeconomic data and/or industry-wide activity trends (e.g., US GA growth) to identify predictive relationships between these elements. These predictive relationships would be employed, along with independent third-party projections of socioeconomic factors and/or broader industry trends, to forecast GA and charter operations at the airport for the forecast period. The forecasts of GA would be further shaped by an analysis of trends of GA activity at surrounding airports, potentially informed by interviews with local FBOs.

3.3.3.4 MILITARY OPERATIONS FORECASTS

Military operations would be sourced from the FAA TAF, since levels are dependent on Department of Defense initiatives, which are not public.

3.3.3.5 ADVANCED AIR MOBILITY / EVTOL OPERATIONS FORECASTS

With the anticipated emergence of AAM technology (including eVTOL aircraft), The Ricondo Team will provide a qualitative, and to the extent possible, quantitative estimate of timing and demand for AAM operations. This will consider progress and trends in the development and certification of eVTOL and similar aircraft, as well as other factors that may affect the level and timing of passenger/customer acceptance, airline/operator investment, and overall long-term business viability. The forecast will be integrated into the overall aviation activity projections to assess potential impacts on airport infrastructure, air traffic control, and passenger conveyance systems.

3.3.4 AIRCRAFT FLEET MIX AND CRITICAL AIRCRAFT DETERMINATIONS

The Ricondo Team will review historical fleet mix and flight data as well as research airline fleet orders and aircraft manufacturer's projections. The projections of aircraft fleet mix will initially focus on seating ranges of aircraft likely to serve MCO. The projections will then be further refined to identify specific aircraft types (i.e. representative aircraft for each seating range category) considering existing airline fleets and the announced orders for new aircraft. Fleet mix will be developed for FY 2025, 2030, 2035, 2040, 2045, and 2050 forecast horizons.

3.3.5 BASELINE FORECAST RESULTS

Forecast outputs would be summarized at the annual level for each year of the forecast period. The specific elements to be included in the forecast results would include:

- enplaned passengers with detail of O&D versus connecting and international versus domestic
- air cargo tonnage
- aircraft operations by category (passenger airline, all-cargo, GA [with a separate identification of "other air taxi"], and military)
- future fleet mixes for all activity categories detailed in 5-year increments for FY 2025, 2030, 2035, 2040, 2045, and 2050 by Airplane Design Group and including representative aircraft types for each group. The GA future fleet mix would be based on FAA engine classification: single-engine, multi-engine, turboprop, jet, helicopter, and other.
- critical aircraft[1] (existing and future) expected to operate at the airport during the forecast period

[1] The critical aircraft is defined in FAA AC 150/5000-17, *Critical Aircraft and Regular Use Determination*.

3.4 PEAK MONTH AND PEAK MONTH AVERAGE DAY DERIVATIVE FORECASTS

The baseline forecasts will also include detail of enplaned passengers and aircraft operations for the airport's peak month and peak month average day (PMAD) or peak month average weekday (PMAWD) at the base-year, and at future planning horizons (5-, 10-, 15-, 20-, and 25-year).

3.5 DESIGN DAY FLIGHT SCHEDULES

Design Day Flight Schedules (DDFSs) representing daily operations will be prepared for passenger airline, cargo, general aviation, and military aircraft operations using the baseline forecast of annual and PMAD/PMAWD passenger and aircraft operations. DDFSs will be developed for the base-year (FY 2024), and planning horizons (FY 2030, 2035, 2040, 2045, and 2050). To account for demands that international activity may place on facilities, the DDFSs will include peak international activity levels identified separately from the airport's PMAD/PMAWD. The DDFSs will only be generated for the baseline forecast (not including the baseline high and the baseline low forecasts).

These flight schedules will be prepared based on the existing (base year) flight schedule, modified to reflect the projected future fleet mix, markets served, and expected future peaking characteristics. Information related to aircraft fleet mix and seating capacity by aircraft type, airline, and scheduled arrival and departure time will be informed by the analysis conducted in the market assessment.

DDFSs will be developed in MS Excel format. These schedules will be used for the airfield capacity analysis and to derive terminal space, aircraft gate, and remote hardstand requirements. They may also be subsequently used for more detailed terminal programming analyses. Data related to airline, aircraft type, seating capacity, load factor, passenger volumes, scheduled arrival and departure time, and gate assignment will be generated per flight.

The DDFSs will be summarized in narrative and graphical format in the draft Forecast Technical Memorandum.

3.6 ALTERNATIVE DEMAND SCENARIO

In addition to the baseline passenger forecasts (the baseline, baseline high, and baseline low), an alternative passenger airline demand scenario of activity at MCO would also be developed. A workshop will be conducted with the Aviation Authority's Leadership Team to discuss which scenario should be modeled. The alternative demand scenario would account for changes in factors that may affect activity, such as:

- changes in fleet planning, including increasing gauge of aircraft
- changes in the airline operating cost environment, including the cost of fuel
- changes in airline profitability targets
- changes in the airline activity profile at the airport
- potential new entrant airlines or new market opportunities
- changes in service at competing airports
- significant industry, macroeconomic, or external events (such as a pandemic or natural disaster)

Specific elements and considerations would be determined in collaboration with Aviation Authority staff and may be used to represent:

- a high scenario that tests the limits on airfield capacity
- a low scenario that may be used in conjunction with financial feasibility studies
- a scenario represented by the latest FAA TAF
- A scenario that models/assess diversification in the airlines or airline operating characteristics at MCO

While specific elements would be considered for the analysis, efforts would be made to keep summary information generic, avoiding identification of changes by individual carrier and/or route.

3.7 FORECAST MEETINGS

The Ricondo Team will staff and prepare for meetings to present findings and results in person to the Aviation Authority and other stakeholders:

- Upon completion of the market assessment, these meetings will include:
  - review of preliminary draft with Aviation Authority PM (virtual)
  - review of draft with Aviation Authority PM (virtual)
  - review of final draft with Senior Management Team (on-site)
  - review of final market assessment with Senior Management Team (on-site)
  - airline representatives preparatory meeting with Aviation Authority staff (virtual)
  - review of final market assessment with airline representatives (on-site)
- Upon completion of the baseline forecasts, these meetings will include:
  - review of preliminary draft with Aviation Authority PM (virtual)
  - review of draft with Aviation Authority PM (virtual)
  - review of draft with Senior Management Team (on-site)
  - airline representatives preparatory meeting with Aviation Authority staff (virtual)
  - review of final baseline forecasts with airline representatives (on-site)
  - review of final baseline forecasts with Senior Management Team (on-site).
  - alternative demand scenario workshop with Senior Management Team (on-site).

In addition, the Ricondo Team would staff, prepare for, and conduct individual airline and cargo carrier conference calls (via teleconference) with up to 12 airlines and up to 4 cargo carriers to solicit input for, and to validate, the findings of Subtask 3.2. It is assumed that each Ricondo Team member would need a total of 1 hour for pre- and post-conference preparation and follow-up for each conference held. Additional time would be required for the development of meeting materials prior to airline conference calls.

TABLE 3-1 AVIATION ACTIVITY FORECASTS: MEETINGS

COORDINATING ENTITY	ON-SITE VS. VIRTUAL	NUMBER OF MEETINGS	ANTICIPATED MEETING DURATION (EACH MEETING)	NUMBER OF RICONDO TEAM PARTICIPANTS
Aviation Authority Senior Management Team	On-Site	5	2.0 hours	4
Aviation Authority Project Manager	Virtual	4	2.0 hours	4
Airline Conference Calls	Virtual	Up to 12	1.5 hours	3
Airline Representatives (group meeting)	On-Site	2	2.0 hours	4
Airline Representatives Preparatory Meetings	Virtual	2	1.5 hours	4
Cargo Carrier Conference Calls	Virtual	Up to 4	1.5 hours	3
Briefing to FAA & FDOT	Virtual	1	2.0 hours	4

NOTES:
FAA – Federal Aviation Administration
FDOT – Florida Department of Transportation
SOURCE: Ricondo & Associates, Inc., August 2024.

3.7.1 FAA COORDINATION

The purpose of this task is to better ensure acceptance of the updated forecast traffic levels by the FAA and continuing support by the FAA on future financial funding required to support capital improvements at MCO. Following the completion of the Baseline Forecasts, Ricondo will support the Aviation Authority in its coordination with the FAA's ADO and APO if requested and present the preliminary forecasts during an in-person meeting including approach and methodology with the draft forecast traffic levels compared to the latest TAF for review.

Ricondo will provide written responses in the form of revised sections of the forecast documentation and a summary letter presenting Ricondo's actions to resolve questions and comments from the airport and the FAA. It is anticipated that any clarification of comments from the FAA will be addressed via conference call.

3.7.2 PRESENTATIONS

The Ricondo Team will prepare executive-level presentations in PowerPoint format summarizing the forecast assumptions, methodology, and figures for the results of this effort. PowerPoint presentations would also be developed to support interim meetings with the Aviation Authority. A final Executive Summary will be prepared (in PowerPoint format) and will be provided to the Aviation Authority, which will summarize the inputs, assumptions, methodology, and results of the Aviation Activity Forecasts task.

3.8 DRAFT FORECAST TECHNICAL MEMORANDUM

The Ricondo Team would provide a compilation of the baseline forecasts, peak activity metrics, and alternative demand scenarios in report form for the Aviation Authority to review the assumptions, methodology, and results of the forecast analysis. The report containing the activity forecasts would summarize these elements and would include tables, graphics, and sources used. In addition, the baseline forecasts would be compared to prior forecasts prepared for MCO, including the latest FAA TAF. The report would be delivered electronically in Microsoft Word and PDF formats.

The review and comment process for the Technical Memorandum will incorporate two revision rounds: (1) preliminary draft for Aviation Authority review and comment and (2) final draft for Aviation Authority review and

comment. The second round of comments/revisions will be incorporated into the draft MPU chapter and will remain until final comments are solicited at submission of the draft MPU Report.

AVIATION ACTIVITY FORECASTS: SUMMARY OF DELIVERABLES

TABLE 3-2 AVIATION ACTIVITY FORECASTS: DELIVERABLES

DELIVERABLES	FORMAT	NUMBER OF COPIES
Preliminary Draft Forecast Technical Memorandum for Aviation Authority Review and Comment	Electronic (PDF)	N/A
Final Draft Forecast Technical Memorandum for Aviation Authority Review and Comment	Electronic (PDF)	N/A
Preliminary Draft Technical Memorandum for FAA Review and Comment	Electronic (PDF)	N/A
Final Draft Technical Memorandum for FAA Review and Comment	Electronic (PDF)	N/A
Final Forecast Chapter	Electronic (PDF)	N/A
PowerPoint Presentation for Executive Summary of Inputs, Assumptions, Methodology, and Results of Aviation Activity Forecasts	Electronic (PDF)	N/A

NOTES:
FAA Federal Aviation Administration
N/A Not Applicable
SOURCE: Ricondo & Associates, Inc., August 2024.

4. DEMAND/CAPACITY AND FACILITY REQUIREMENTS ANALYSES

This phase of the Master Plan Update (MPU) will utilize the results of the Inventory and Aviation Forecasts to assess the ability of existing Airport facilities to meet the forecast level of demand for the 5-, 10-, 15-, and 20-year planning horizons (FYs 2030, 2035, 2040, and 2045). It will determine the capacities of the existing airfield, terminal, landside, and various other airport support facilities relative to their capabilities for accommodating projected future demand. Activities conducted under this task will result in the identification of requirements and timing for additional facilities, expansion to existing facilities, and the determination of those facilities that will meet the forecast of demand over the course of the planning period.

The analysis of airfield, passenger terminal facilities, and terminal roadways will be supplemented with dynamic simulation modeling tools. This task will culminate with the development of a Demand/Capacity and Facility Requirements Working Paper that shall be submitted to Aviation Authority Staff for review and comments. The working paper will ultimately become a stand-alone chapter in the Final Master Update Plan Report.

4.1 AIRFIELD AND AIRSPACE REQUIREMENTS

To ensure sufficient long-term runway capacity is available to support long-term growth of MCO, the annual service volume (ASV) of MCO's existing airfield would be estimated in accordance with the methodologies prescribed in FAA Advisory Circular 150/5060-5A (Change 2), Airport Capacity and Delay. The ASV would be compared to forecast activity levels to determine if the existing runway capacity can sufficiently accommodate growth anticipated within the planning horizon.

The Demand/Capacity Analysis task also includes an airfield design standards compliance review that would identify airfield enhancements necessary to ensure compliance with current FAA airfield design standards and compatibility with the expected future aircraft fleet mix. Should areas be identified that are not in compliance with these standards, the Ricondo Team would identify any pavement geometry modifications that may be necessary.

4.1.1 AIRFIELD COMPLIANCE REVIEW

MCO's existing airfield would be analyzed to identify potential areas that do not comply with current FAA airfield design standards, with particular emphasis on mitigating runway incursion risks as well as identifying and assessing mitigation options for addressing existing modifications of standards (MOS). This review would focus on:

- airfield pavement geometry and markings
- airfield lighting, signage, and NAVAIDs
- runway protection zones
- safety areas
- obstacle free zones
- object free areas
- navigational aid critical area
- threshold siting surfaces

The airfield compliance review would assess the runway or taxiway safety areas for compliance with grading and drainage requirements based on topography, water feature, and other data to be provided by the Aviation Authority. No survey work is assumed as part of this task. The airfield compliance review would culminate with a list of deficiencies that should be addressed during the Alternatives task.

4.1.2 RUNWAY LENGTH AND EXIT ANALYSIS

A runway length analysis would be performed to determine if future lengthening of runways at MCO would be warranted. It would consider the aircraft performance characteristics associated with the most prevalent engine types as contained in the Aircraft Characteristics for Airport Planning and Design and follow the methodologies prescribed in FAA Advisory Circular 150/5325-4B, Runway Length Requirements for Airport Design. This analysis would focus on aircraft takeoff distance requirements providing consideration for aircraft stage length necessary to reach current and future destinations.

The aircraft types to be assessed would be identified in consultation with Aviation Authority staff. The takeoff distance requirements would be derived utilizing the Aircraft Characteristics for Airport Planning Manuals published by Airbus Industries and Boeing Aircraft Corporation. The takeoff distances at maximum allowable takeoff weight and with a maximum passenger payload would be calculated and compared with the current runway lengths for each of MCO's runways.

A runway exit analysis would be performed using FAA's Runway Exit Design Interactive Model (REDIM) to evaluate the ability of the forecast aircraft fleet to utilize existing runway exit taxiways and determine optimal locations for potential future high-speed exits to maximize runway operational efficiency and capacity.

The runway length and exit analysis would identify improvements that should be explored during the Alternatives task.

4.1.3 RUNWAY WIND COVERAGE

The Ricondo Team shall assemble and analyze 10 years of historical wind and weather data for MCO. Ceiling, visibility, wind speed and direction would be analyzed to develop a wind rose, assess existing wind coverage, and determine the percentage of observations in visual and instrument meteorological conditions. The weather data would be used to develop the wind roses for visual meteorological conditions (VMC), instrument meteorological conditions (IMC) and All-Weather conditions.

4.1.4 RUNWAY CAPACITY ANALYSIS

The Ricondo Team would coordinate with Aviation Authority staff in evaluating existing and future capacity and operational efficiency of the airport airfield and airspace system for use in the requirements analysis. For budgeting purposes, it is assumed the Ricondo Team would update the airport Capacity Profiles prepared by the FAA in 2014 using a similar approach, methodology, and software (runwaySimulator), using the best practices described in FAA Advisory Circulars AC 150/5070-6B, Airport Master Plans and AC 150/5060-5, Airport Capacity and Delay, and ACRP Report 79, Evaluating Airfield Capacity.

It is expected that detailed airfield/airspace simulation analysis using a high-fidelity model would be performed as part of the airfield alternatives task, described in Section 6 of this scope of work.

4.2 TERMINAL AND AIRSIDE REQUIREMENTS

The Ricondo Team will conduct a capacity analysis and determine future requirements for aircraft parking positions and future facility requirements and gap for the Terminals and the Airsides. Future facility requirements will be developed to correlate with the base year peak month average day (PMAD) airline flight schedule and successive baseline forecast design day airline activity schedules associated with the 5-, 10-, 15-, 20-, and 25-year planning horizons.

4.2.1 TERMINAL GATE CAPACITY AND REQUIREMENTS ANALYSIS

The Ricondo Team will develop and individually assess gate requirements for each North Terminal Airside and Terminal C based on the baseline existing conditions developed under preceding tasks, which describe gate inventories, airline gate assignments and operating parameters, which include minimum gate occupancy times, inter-gate (rest) times, and use basis. The Ricondo Team will utilize aircraft schedule gating software to determine individual Airside gate requirements and remain overnight (RON) aircraft parking requirements for aircraft that cannot be accommodated at Airside gate positions.

4.2.2 TERMINAL DEMAND/CAPACITY AND REQUIREMENTS

The Ricondo Team will synthesize data collected from the preceding tasks, which defined the baseline terminal and airside facility inventories, passenger characteristics, and operating parameters. The Ricondo Team will leverage work previously completed (including data collected, capacity analysis and tools utilized) for the North Terminal Capacity Analysis as part of this task, recognizing some refinements and validations with the Aviation Authority may be needed, as well as the application of the MPU forecasts and design day schedules. Computer simulation and/or spreadsheet models will be used to synthesize the data and project the performance of the baseline terminal and airside facilities against demand derived from the forecast airline flight schedules for the base year and successive planning horizons. The baseline performance evaluation will, as examples, project the number of passengers waiting for processes and wait times, or the number of baggage carts required to transport bags to aircraft, if, in both examples, there are no changes to the baseline terminal and airside facility inventory. The Aviation Authority's desired level-of-service goals, which represent the acceptable wait times and spatial comfort that the Aviation Authority expects to provide passengers, along with other users' operating requirements, will then be laid over the performance evaluation to quantify the facilities that will be needed to achieve the LOS goals and operating requirements at demand levels correlating to the forecast airline flight schedules for the base year and successive planning horizons. The preceding evaluation is referred to as a facility gap analysis. The gap analysis defines the types and amount of future facility requirements and when they will be needed in the context of the short and long-term passenger forecast; and can be used to infer the annual capacity of the individual Terminals and Airsides. The gap analysis will provide the initial facility requirements for developing alternative concepts to achieve the Aviation Authority's LOS goals and meet users' operating requirements.

The demand/capacity analysis for the terminal complex will also determine when existing terminal and airside capacity will be exceeded and when enhancements to terminal capacity would be required to accommodate forecast demand within acceptable passenger service levels.

Facility requirements for the following types of terminal and airside facilities will be developed under this subtask:

- Airline/Aviation Authority facilities:
  - check-in areas
  - bag rooms for outbound bag makeup

  - bag claim areas including baggage service offices and inbound unloading
  - bag conveyor systems: The Ricondo Team will only identify high-level BHS constraints that would need to be considered as part of the airport development. No detailed analysis of the existing BHS would be completed, and no simulation modeling is included as part of this scope of work.
  - gate holdroom areas
  - airline or Airport club/business center
  - airside operations offices
- commercial and Airport amenities and services programs:
  - retail, food and beverage, news
  - duty free
  - restrooms and other amenities
  - Concessions Receiving and Distribution Center (CRDC)
- CBP facilities:
  - primary inspection (Global Entry, , booths/podiums)
  - international baggage claim
  - secondary processing spaces
  - exit control
  - other operational offices
- TSA:
  - passenger SSCP (standard, CLEAR, and TSA PreCheck)
  - checked baggage screening
  - administrative and support areas
- ground transportation service counters
- police and other agencies
- Airport administration and operations:
  - executive and administrative offices and meeting and support areas that are located within Airside buildings
  - Airport operations
  - Airport maintenance facilities such as workshops and storage and equipment areas that are located in the Airside buildings
- building circulation and services
  - circulation corridors
  - vertical circulation
  - loading docks

- waste handling

- building utility spaces:
  - mechanical, electrical, plumbing, and fire protection system equipment rooms
  - information technology (IT) facilities

- BHS:
  - Induction systems (in-terminal, off-site, curbside, transfer bags)
  - Mechanical conveyance
  - Staging and storage
  - International/domestic baggage claim
  - Central Baggage Inspection

There will be different approaches used to develop in-terminal facility requirements depending on the facility type:

- Passenger processing facility requirements will be developed using methodologies that are generally consistent with the IATA's *Airport Development Reference Manual*, 12th edition. Computer modeling will be used to synthesize factors that generate demand, as well as to correlate demand with facilities that would be required to achieve the LOS prescribed by the Aviation Authority.
  - Departing and arriving volumes will be generated using design day flight schedules that have been developed as part of forecasts for each planning horizon. These schedules would provide flight-by-flight descriptions of service routes, aircraft equipment types, load factors, and local boarding percentages.
  - Passenger volumes will be profiled using passenger attributes, such as show-up times for check-in, class of service, percentage of passengers checking bags, and class of service, among other factors.
  - Modeling of individual subsystems will occur to analyze subsystem performance and to determine facility requirements under current and optimized operating conditions.
  - The IATA's LOS framework, along with other LOS standards established specifically for the airport or derived through other industry-accepted publications (e.g., those published through the ACRP), will be used as the basis for reaching consensus with the Aviation Authority's designated stakeholders for the quality of experience that the airport is able to provide its customers. Specifically, the IATA framework addresses passenger experience in terms of transaction (processing) times and comfort while in queue for service. Each subsystem used to process passengers, for example check-in, will be analyzed separately, since criteria used to measure LOS vary among different subsystems.
  - Facility space templates will be developed in collaboration with the Aviation Authority's designated stakeholders to represent the optimal operating conditions for each passenger processing area. Templates will define spatial clearances for safe and efficient operations around equipment, as well as relationships between process areas that are part of each facility.

- Concessions:
  - The Ricondo Team will collaborate with the Aviation Authority's Commercial Program Manager to develop factors that can be applied to forecast annual enplaned passengers to derive supportable concession program requirements for each activity level.

- Aviation Authority, airline, and other agency support spaces:
  - Interviews will be conducted with the Aviation Authority and other agencies to separately determine their space requirements, unique facility specifications, and triggers for additional space requirements.
  - Relationships between discrete organizations within each agency will be identified to establish physical adjacency requirements.
- Building circulation and services:
  - For purposes of this study element, facility requirements for building services will be represented as a percentage of overall building space, since these types of areas can vary depending on the physical arrangement of spaces.
  - Optimal capabilities desired by the Aviation Authority for typical building circulation components, such as elevators and loading docks, will be documented.
- Building utility spaces:
  - For purposes of this study element, facility requirements for building services will be represented as a percentage of overall building space, since these types of areas can vary depending on the physical configuration of the terminal and the type of energy system.
  - Interviews will be conducted with the Aviation Authority's designated stakeholders to document the optimal types of systems that should be used to support future terminal development.

4.3 CARGO REQUIREMENTS

The tonnage throughput for the projected cargo activity derived as part of the Aviation Activity Forecasts will be estimated and the results translated into square footage requirements for buildings (to include warehouse and office), aircraft apron, and landside requirements for trucks and automobiles. The need for specialized facilities, whether stand-alone or contained in the cargo buildings will be evaluated and included. The differences between capacity and demand will be calculated, and the properties designated for cargo and cargo related activities will be planned to optimize processing time and connectivity and reduce costs for tenants and users.

Facility needs will be analyzed for the following:

- Cargo processing facilities:
  - Belly cargo buildings with ramp access
  - Cargo buildings with adjacent aircraft parking
  - On-Airport Freight forwarder facilities (if any)
- Landside trucking and automobile requirements:
  - Truck docks
  - Truck maneuvering and queuing
  - Customer parking
  - Tenant parking
- Cargo ramp areas and aeronautical access

- Other air cargo support facilities:
  - Specialized cargo support
  - Government office facilities

This analysis will define the current and future space requirements for air cargo facilities and functions. Space requirements will be used in subsequent tasks to define and evaluate future airport expansion, enhancement, or development alternatives.

4.4 GENERAL AVIATION REQUIREMENTS

The Ricondo Team will conduct a demand/capacity and facility requirements assessment for existing general aviation and FBO facilities, including aircraft apron areas, at MCO. Existing facilities will be compared against future demand to determine the extent of improvements/expansion needed for each planning horizon. The airport requirements will be based on the anticipated transient aircraft fleet served by FBOs and general aviation aircraft based at the airport, and information obtained during the inventory task. Facility features to be analyzed include facility size, type, access, and parking spaces, using methodologies applicable to this activity segment. The facilities to be analyzed include those leased to Airports two FBOs: Signature Flight Support and Atlantic Aviation. Specific GA facilities to evaluated include:

- Hangars and ramp areas
- Fuel storage facilities
- Customer/visitor and employee vehicle parking areas
- Facility landside and airside access
- Other GA supporting facilities (tenant storage, maintenance, etc.)

Space requirements will be used in subsequent tasks to define and evaluate future airport expansion, enhancement, or development alternatives.

4.5 LANDSIDE REQUIREMENTS

Facility requirements for the terminal curbs, parking, rental car, and staging lots will be developed in the task. Future roadway requirements will be identified as part of the Mobility Master Plan in Task 5.

4.5.1 CURBSIDE CAPACITY ANALYSIS

The Ricondo Team will develop a Vissim simulation model to assess curbside operations and performance, as well as identify deficiencies under a baseline condition that consists of existing and planned physical and operational conditions along the airport curbsides. This effort would quantify the existing curbside demands as well as the associated deficiencies experienced during the PMAD. Vehicle volumes to and from each curb developed as part of Task 5 will be used in the curbside evaluation and requirements analysis.

Key steps include the following:

- **Prepare Existing Conditions Vissim Model** – An existing Vissim simulation model of each curb would be developed to simulate the existing and planned physical roadway configuration, including curbside allocations by mode and pedestrian crosswalk locations based on data collected in the field. The model would simulate the

effects of existing operating procedures and the resulting implications of double parking, congestion from departures, arrivals and commercial vehicle activities, and vehicle bunching around terminal building doorways, among other factors. The Vissim model would be loaded using peak-hour traffic volumes and calibrated to the existing conditions volumes for the departures and arrivals peak periods.

- **Prepare Baseline Vissim Simulation Models** – The existing conditions Vissim model would be updated to design day traffic activity for the baseline condition. Modeling runs would be based on the existing curbside geometry and the general operating procedures (e.g., level of enforcement, vehicle curbside allocations) that are currently in place.
- **Prepare Static Curbside Requirements** – It is important to estimate the static requirements, as well as assess the actual anticipated facility operations and requirements based on simulation. The static requirements would provide a basis for estimating the "weakest link" when curbsides would fail; however, these requirements would be validated and/or further refined based on simulation. A curbside LOS analysis would be prepared by assessing the utilization of the curbside facilities, which is calculated by comparing the estimated curbside demand in linear feet to the available curbside.
- **Prepare Future Year Vissim Simulation Models** – Output from the Mobility Master Plan models will be used as input for future Vissim simulation models. The Ricondo Team will simulate baseline future conditions (i.e., future demand with planned curbside geometry and operating procedures), as well as up to four future year alternative models, which will be developed in coordination with Aviation Authority staff.

Based upon results of both the static and Vissim simulation models, the Ricondo Team will identify the approximate demand and year that elements along curbsides exceed capacity.

4.5.2 PUBLIC AND EMPLOYEE PARKING DEMAND/CAPACITY AND REQUIREMENTS

4.5.2.1 PUBLIC PARKING FACILITIES

This effort would build upon the Parking Capacity Study conducted in 2024 to quantify the existing public parking demand as well as the associated deficiencies experienced during the PMAD. As a baseline condition, future demand would be estimated based on the assumption that parking requirements would increase in proportion to the expected increase in annual originating airline passengers. In addition, up to three alternative parking demand scenarios would also be developed.

The scope of work is based on the following assumptions:

- Future public parking demands would be prepared for 5-year, 10-year, and 20-year planning horizons based on the baseline aviation activity forecasts.
- Estimated public parking demands will be prepared for the 95th percentile day.
- The public parking demands and requirements will represent the airline passengers, meeters/greeters, and well-wishers using the parking facilities within the airport revenue control system.

The baseline public parking demand and capacity assessment of public parking facilities will include the following key steps:

- **Assessing Existing Parking Demand** – An assessment of historical daily peak and overnight on-Airport parking demand will be conducted to identify the typical design-day activity. The Ricondo Team will prepare a parking demand model based on transaction data by parking duration (e.g., 0 to 30 minutes, 30 minutes to 1 hour, 1 hour to 2 hours, etc.) and daily occupancy to identify on-Airport parking demand by the following duration

categories: short-duration (e.g., 0 to 3 hours), mid-duration (e.g., 3 to 24 hours), and long-duration (greater than 24 hours). The model will estimate the number of spaces in each facility currently required to accommodate each duration category of parking activity. The model will be calibrated to the existing revenue generated by each of the airport's parking facilities and the short-duration and long-duration components of demand accommodated in each facility during the typical design-day period.

- **Estimating Existing and Future Public Parking Requirements** – The parking demand model will be used to predict parking demand by duration category for each on-Airport parking facility for future year conditions (5-year, 10-year, and 20-year planning horizons). For the baseline parking analysis, on-Airport future parking demand will be estimated based on the assumption that parking demand will increase in proportion to the expected increase in annual airline passenger originations. Existing design-day on-Airport public parking demands would be converted to on-Airport parking "requirements," which include an additional LOS-based "buffer" of parking spaces such that a parking facility is not 100 percent occupied on the typical design day.

The resulting parking requirements will be based on technical and policy-level assumptions regarding the desired allocation by location for short-duration and long-duration parking, close-in versus remote parking, and market allocation between on-Airport and private off-Airport operators. It is assumed that the existing market share allocation between on-Airport and off-Airport public parking demand will remain constant and that the growth in future on-Airport parking demand would be accommodated on-Airport. These assumptions and resulting parking requirements will be discussed and confirmed with Aviation Authority staff.

- **Assessing Capacity of Existing Facilities** – The estimated requirements will be compared with available parking spaces and estimated deficiencies (or surplus) in available spaces will be identified. Requirements will be presented in a tabular format that will identify the planning horizon (and originating passenger demand level) where parking demand is expected to exceed the supply of parking and the anticipated deficiency on a facility-by-facility basis. As part of this task, the Ricondo Team will document the planned/proposed parking garage expansion and the associated number of additional parking spaces to be constructed.
- **Conducting Sensitivity Analyses** – The capacity assessment of the existing public parking products, and the quantification of future public parking requirements, will be conducted for up to three alternative parking demand scenarios based on the analysis described in Task 4.5.3. The results of the sensitivity analyses will be presented in a manner similar to the baseline public parking analysis.

4.5.2.2 EMPLOYEE PARKING FACILITIES

The Ricondo Team will identify the approximate year that employee parking demand exceeds capacity and will quantify the near-term, intermediate-term, and long-term parking requirements (5-, 10-, and 20-year planning horizons) for MCO. Data to be provided by the Aviation Authority include daily maximum peak demand, overnight parking demand, and employee shift times. This task will include a review of available parking spaces and the identification of deficiencies (or surplus) in available spaces.

Future employee demand would be developed based on projected growth from the aviation activity forecasts and in coordination with the Aviation Authority, and it may be estimated based on the assumption that employee parking requirements would increase in proportion to the expected annual increase in the average growth in airline passenger volumes and aircraft activity.

The baseline parking demand and assessment of MCO's employee parking facilities will similarly include the following key steps:

- **Assessing Existing Employee Parking Demand** – The existing demand for employee parking by employee parking facility will first be estimated. Employee parking demand estimates will be based on actual parking lot accumulation counts by parking lot location obtained during an average busy day of the peak month for employee parking (which will likely differ from the public parking peak month). Parking lot entry and exit volumes (in 15-minute increments) will be used to adjust the occupancy count data to develop a profile of parking accumulation over the course of the busy day, including maximum accumulation that occurs at employee shift overlap. Estimated accumulation profiles will be validated through comparison with field observations and anecdotal information that may be available from Aviation Authority staff.
- **Estimating Existing and Future Employee Parking Requirements** – Absent of employment projections, future employee parking requirements will be estimated by assuming that employee parking requirements will increase in proportion to the expected annual increase in overall Airport activity, assumed to be represented by the average growth in forecast annual originating airline passenger activity and forecast annual aircraft operations. The key assumptions and resulting facility demand and requirements will be discussed and confirmed with Aviation Authority staff.
- **Assessing Capacity of Existing Facilities** – The requirements will be compared with available parking spaces and estimated deficiencies (or surplus) in available spaces will be identified. Requirements will be presented in a tabular format that will identify the planning horizon (and the corresponding passenger demand level) where parking demand is expected to exceed the supply of parking and the anticipated deficiency on a facility-by-facility basis.

4.5.3 PARKING CAPACITY SENSITIVITY ANALYSES

The Ricondo Team will assess the sensitivity of parking requirements to changes in ground transportation trends as reflected in future ground transportation scenarios.

4.5.3.1 ANALYZE RECENT GROUND TRANSPORTATION TRENDS

The Ricondo Team will analyze and consolidate historical ground transportation transactions and revenue by month for fiscal year (FY) 2019 through FY 2024 for analysis to derive estimates of transaction and revenue mode share trends. Airport access modes to be assessed include the following:

- taxis
- limos
- TNCs
- private vehicles
- shared-ride vans
- courtesy vehicles
- rental cars
- off-Airport parking
- on-Airport parking
- public transit

This task will also include an analysis of changes in revenue per transaction, as well as transactions on a per-original passenger basis and average duration (where applicable). The analysis will assess the drivers of mode share changes,

as well as changes in overall volume of activity and revenue, considering the impact of evolving ground transportation technologies and customer preferences. This task will also consider how changes in air service patterns and passenger characteristics may have affected mode share trends.

4.5.3.2 DEVELOPMENT OF FUTURE GROUND TRANSPORTATION SCENARIOS

Evaluation of ground transportation activity patterns will serve as a baseline upon which the Ricondo Team will develop up to three different future mode share scenarios to project landside activity and revenues at the airport through the planning horizon. The development of these scenarios will consider the following variables:

- Growth of TNCs and ride-sharing – Growth of TNC activity and share of Airport access will accelerate mode share changes that have already occurred and may begin to displace modes that have not yet been impacted. The scenarios will assume different growth rates for TNC mode share and residual impact to other modes.
- Evolution of the TNC business model – The TNC business model is not necessarily in a steady state. The relevance and relative size of the current companies in this space may change. Their business models will evolve as they pursue new product and service offerings to achieve sustained profitability. These changes could impact customer preferences for TNCs and volume of activity at the airport.
- Autonomous vehicles – Autonomous vehicle technology is rapidly evolving, and fully autonomous vehicles may be operating on public roadways within the next few years. This technology could potentially reset the economics of TNCs, driving down costs and increasing activity and mode share. The transportation-as-a-service (TaaS) business model incorporates fleets of autonomous vehicles operated by TNCs, rental car companies, or other entities. The TaaS model could blur the line between existing forms of ground transportation. The scenarios will consider how the development of technology, public policy, and regulations, as well as public acceptance of autonomous vehicles, will influence how quickly this technology drives changes in ground transportation patterns.
- Trends in private vehicle ownership – Demographics may drive a reduction in private vehicle ownership as younger generations increasingly prefer the convenience and economics of using TNCs and public transportation over owning and driving vehicles. This trend could be accelerated by the development of autonomous vehicles operated as shared fleets. These factors would reduce the demand for parking and increase demand for TNCs and public transit. The scenarios will consider different rates of change in private vehicle ownership.
- Development and expansion of public transit infrastructure – Expansion of the regional transit system and the introduction of a light rail network, as well as other integrated public transportation networks, could increase use of this mode to access the airport, as well as shift demand away from TNCs and private vehicles.
- Air traffic and passenger segmentation trends – Changing passenger segmentation patterns may impact the demand for ground transportation products. A shift in the proportion of O&D versus connecting passengers will influence demand for all ground transportation products. Also, increased service from ULCCs could stimulate incremental O&D traffic. The scenarios will consider the price sensitivity of different passenger segments and the resulting demand for different ground transportation products.

Each mode share scenario will drive a projection of activity by year for each mode of Airport access, which will serve as the basis for establishing differing parking demand scenarios.

4.5.4 RENTAL CAR FACILITIES

Future facility requirements will be informed/adopted from the ConRAC Site Selection Study and associated Program Criteria Manual. The requirements include customer service areas, vehicle ready/return spaces, quick turnaround area (QTA) facilities, and vehicle storage. The requirements will be updated to reflect base year (2024) demand levels and the forecasts derived as part of the MPU.

4.5.5 CELL PHONE WAITING AREAS

The Ricondo Team would develop cell phone waiting area requirements in coordination with Airport staff. Several factors, including roadway geometry, existing curbside demand, recirculation percentages, and ease of terminal access, will be considered prior to sizing and relocating the cell phone lot (if necessary). The Ricondo Team would utilize traditional curbside metrics specific to the airport, such as dwell times, recirculation percentage, and vehicle classification, to establish a baseline demand for cell phone lot users.

4.5.6 TAXICAB AND TNC STAGING AREAS

Using data collected as part of the MPU, The Ricondo Team will summarize and analyze data pertaining to taxi and TNC pickups and will prepare future staging area requirements. Given that taxi and TNC pickup operations are actively managed or conducted via app-based queuing systems, a balance of vehicles on the curbside and in the staging lots will be developed. A high and low range of staging area requirements will be developed in coordination with the Aviation Authority and will be based on future airline passenger activity, assumed mode share shifts, and proximity of the staging lot to the terminal.

4.6 SUPPORT FACILITY REQUIREMENTS

The Ricondo Team will conduct a demand/capacity and facility requirements assessment for each of the existing and future support facilities at MCO. Existing facilities will be compared against future demand to determine the extent of improvements needed at each planning horizon. Specific industry methodologies will be used for each support element, considering the unique factors that influence its demand. Facility features to be analyzed include facility size, type, access, and parking space requirements. Information obtained in the inventory task will be reflected in the analysis. The facilities to be analyzed include:

- Aircraft rescue and fire fighting
- Aircraft maintenance
- Airfield electrical vault
- Airport administration and management
- Airport maintenance and equipment storage
- Airport security and police
- Aviation Authority Office, Storage, Warehouse and Support Spaces for Administrative, Maintenance, and Operations Functions
- Flight kitchens and airline provisioning
- Fueling facilities and infrastructure
- FAA facilities (including airport traffic control tower)

- General Aviation Customs Facility
- Ground service equipment storage and maintenance
- Logistics (central receiving and distribution center)

This analysis will define the space requirements for airport and airline support facilities based on functional dependencies with primary Airport facilities and future demand. Space requirements will be used in subsequent tasks to define and evaluate future airport expansion, enhancement, or development alternatives.

4.7 DEMAND CAPACITY AND FACILITY REQUIREMENTS MEETINGS

Throughout the duration of this task, individual meetings with key stakeholders will be required. For each meeting, the Ricondo Team will prepare agendas, discussion materials, sign-in sheets, and meeting notes. **Table 4-1** summarizes the number of meetings anticipated for each subtask associated with this task.

TABLE 4-1 DEMAND/CAPACITY AND FACILITY REQUIREMENTS: MEETINGS

COORDINATING ENTITY	ON-SITE VS. VIRTUAL	NUMBER OF MEETINGS	ANTICIPATED MEETING DURATION (EACH MEETING)	NUMBER OF RICONDO TEAM PARTICIPANTS
Aviation Authority PM	Virtual	4	2 hours	4
Aviation Authority Senior Management Team	On-Site	2	3 hours	4
Aviation Authority Staff – Terminal	Virtual	4	2 hours	2
Aviation Authority Staff – Airfield	Virtual	4	2 hours	4
Aviation Authority Staff – Landside	Virtual	2	2 hours	4
Aviation Authority Staff – Cargo	On-Site	2	2 hours	3
Aviation Authority Staff – Support Facilities	On-Site	2	2 hours	3

SOURCE: Ricondo & Associates, Inc., August 2024.

4.8 DRAFT DEMAND AND FACILITY REQUIREMENTS WORKING PAPER

A Demand/Capacity Analysis and Facility Requirements Working Paper will be prepared to summarize the approach, methodologies, planning considerations, and results. A preliminary draft version of the working paper will be submitted to the Aviation Authority for review and comment. Comments/revisions provided by the Aviation Authority will be addressed and incorporated as appropriate into the draft MPU Report.

DEMAND/CAPACITY AND FACILITY REQUIREMENTS: SUMMARY OF DELIVERABLES

TABLE 4-2 DEMAND/CAPACITY AND FACILITY REQUIREMENTS: DELIVERABLES

DELIVERABLES	ELECTRONIC VS. HARD COPY	NUMBER OF COPIES
Preliminary Draft Demand/Capacity and Facility Requirements Presentation	Electronic	N/A
Draft Demand/Capacity and Facility Requirements Presentation	Electronic	N/A
Final Demand/Capacity and Facility Requirements Presentation	Electronic	N/A
Preliminary Draft Working Paper for Aviation Authority Review and Comment	Electronic	N/A
Final Draft Working Paper for Aviation Authority Review and Comment	Electronic	N/A
Final Demand/Capacity and Facility Requirements Chapter	Electronic	N/A

NOTE:
N/A – Not Applicable
SOURCE: Ricondo & Associates, Inc., August 2024.

5. MOBILITY MASTER PLAN (TO BE PREPARED BY OTHERS)

To be included in a future amendment to the Master Plan Update or as a separate assignment to be completed by others (not as part of the Master Plan Update).

6. ALTERNATIVES DEFINITION AND EVALUATION

The Ricondo Team would consider the future aviation-related facility requirements defined in Task 4 to create future airport enhancement, improvement or expansion alternatives. These alternatives will initially be developed for discrete functional areas of the airport (i.e., airfield, terminal, landside, cargo, general aviation, support, and non-aeronautical development). While initial alternatives will be developed for each discrete functional area, the Ricondo Team will coordinate alternatives between functional areas as appropriate. For example, terminal processor alternatives will be developed in coordination with curbside and landside access alternatives.

Functional area alternatives will be developed considering previously established guiding principles and evaluation criteria developed with Aviation Authority staff. After identifying an initial range of discrete alternatives, a screening analysis would be conducted to select a short list of functional area alternatives. The screening analysis would be qualitative in nature, using pre-determined evaluation criteria and a ranking methodology to be derived in consultation with the Aviation Authority. The screening effort would result in a short-list set of alternatives for each functional area, suitable for integration in the form of an Airport-wide development plan, which will be developed in Task 6.5.

6.1 OVERALL DEVELOPMENT AND MOBILTY OF THE FUTURE VISION

The Ricondo Team will work with Aviation Authority staff to develop an overall vision that would aim to guide alternatives development and evaluation by identifying overarching priorities and guiding principles. This MPU stands as a pivotal tool in aligning the Aviation Authority's physical and operational goals for MCO with long-term strategic objectives identified in the Aviation Authority's 2023 Strategic Plan and represents not only a roadmap for MCO's development over the next 20 years but also a strategic alignment with the Aviation Authority's mission and vision, and the underlying goals and objectives defined in the Strategic Plan. By charting the course for future airport development at MCO, this MPU will simultaneously advance key elements of the Strategic Plan, fostering sustainable growth, operational efficiency, and enhanced passenger experience.

The 2023 Strategic Plan articulates the Aviation Authority's mission to seamlessly connect Florida and the world through exceptional experiences, collaboration, and creativity and vision to become the global leader in the evolution of mobility. The Strategic Plan is organized around four Strategic Priorities – People, Connection, Community, and Innovation that will enable the Aviation Authority to meet the evolving demands of their stakeholders and the traveling public. This MPU would serve as the vehicle to translate these strategic aspirations into specific airport development recommendations, ensuring that every expansion and improvement undertaking is strategically aligned with the broader mission and vision of the Aviation Authority.

Central to the Strategic Plan is the ability to expand capacity while delivering superior customer service. The Ricondo Team will explore innovative approaches to infrastructure development, such as optimizing terminal layouts, airfield configurations, and ground transportation access. Each of the Strategic Priorities are further supported by four Strategic Goals and each Strategic Goal is supported by four Strategic Objectives. The outcomes of this study have the potential to advance progress for up to 13 (of 16) Strategic Goals and 35 (of 64) Strategic Objectives – making it one of the single most impactful efforts the organization will undertake in the coming years.

This study represents more than just a blueprint for physical development; it would embody the Aviation Authority's commitment to realizing its strategic vision. By forging a direct link between the MPU and the Strategic Plan, the

Aviation Authority aims to not only meet but exceed the expectations of their stakeholders, contributing to the growth and enduring success of MCO for years to come

The Scope of Services for this task comprises three, 4-hour planning charettes, aimed at high-level vision discussions on the future of MCO relative to following themes:

- Elevating the MCO Mission Workshop – Consistent with the Aviation Authority's mission to seamlessly connect Florida and the world through exceptional experiences, collaboration, and creativity, and in furtherance of strategic objective 2.4.2, Support *"Airport City: synergistic development, allowing MCO and ORL to evolve from gateways to destinations"*, the Ricondo Team would organize and facilitate a planning charrette in close collaboration with the Aviation Authority's Leadership Team to discuss the aforementioned topics that establish actionable initiatives to include within the MPU or to help guide the formulation of alternatives for future airport expansion, improvements, and enhancements. The Aviation Authority will be consulted on key external stakeholders that should participate in this Workshop, along with other industry experts in the fields of airport development, urban/city development, and commercial development within airports.
- Mobility Modes of the Future Planning Charette: The Ricondo team would organize and facilitate a Planning Charette with key Aviation Authority stakeholders and up to eight (8) industry mobility experts. Working with the Aviation Authority, the Ricondo Team would identify and recruit industry mobility experts representing a wide range of mobility solutions – including but not limited to, advanced air mobility, rail, automated people movers, micro mobility, and autonomous vehicles. In advance of the workshop, the Ricondo Team would summarize the Aviation Authority's strategic mobility goals (drawing heavily on the 2023 Strategic Plan) and prepare a primer that would be shared with participants in advance of the charrette. The desired outcome of the charrette would be identification of potential mobility solutions and a high-level understanding of mobility facility and area needs that could be accommodated through development of alternatives for each functional area of the airport.
- Planning Charrette on an Aviation Authority selected Theme: a planning charrette on a topic or theme of interest to the Aviation Authority will also be organized in close consultation with the Aviation Authority's Leadership Team.

6.2 EVALUATION CRITERIA

The Ricondo Team will work with the Aviation Authority to develop qualitative and quantitative criteria to be used in the evaluation of development alternatives, including but not limited to safety, cost, feasibility, complexity, constructability, operational impact, suitability of reusing/renewing existing infrastructure, environmental impact, sustainability, resilience, and those emerging from stakeholder input.

6.3 FUNCTIONAL AREA ALTERNATIVES

The Ricondo Team would develop alternatives for the discrete functional areas of the airport, including the airfield, terminal, landside, support, and non-aeronautical areas.

6.3.1 AIRFIELD

The Ricondo Team would develop up to six airfield design alternatives that would accommodate anticipated development through the planning period and beyond, while providing adequate runway capacity and addressing identified configuration changes to meet current FAA airport design guidance. Airfield development alternatives will

address issues related to the overall airfield capacity, taxiway and apron congestion, efficiency of taxiing and deicing operations, navigational aids, pavement condition, air traffic control tower line-of-sight, and airspace operations.

Airfield alternatives are not anticipated to focus extensively on additional runway capacity or runway reconfiguration options, with the exception of exploring options for runway extensions – if such a need is identified in Task 4. Rather, the airfield alternatives are anticipated to include refinements to the (existing) baseline runway and taxiway system to address the issues identified in the airside requirements task, namely: airfield circulation enhancements and operational efficiency improvements, conformance to FAA airfield design standards, NAVAIDs, holding bays and ramp areas.

This sub-task assumes up to four, 2-hour work sessions with airfield focused stakeholders, which may include but not be limited to Aviation Authority Operations staff, ATC personnel, and FAA representatives.

6.3.2 PASSENGER TERMINALS

Concept development will focus on providing comprehensive and integrated alternatives that maintain an operational balance among airside elements (aircraft gates and RON positions), terminal elements (flights and passenger processing), and landside (curbside and roadway) elements. These overall concepts will be developed with the objective of meeting the identified requirements for each facility component in as efficient a manner as possible, while maintaining the gate/terminal/curbside/roadway operational balance of each concept.

Examine up to six options to accommodate future demand and address facility constraints for the passenger terminals, including passenger processing, security, FIS facilities, public safety, baggage handling, concessions, and gate capacity and capabilities. This would include analyses of how the terminals can be expanded (Terminal C and future Terminal D) or redeveloped/improved (North Terminal) to meet project demand while minimizing the impacts that the expansion would have on existing operations.

A significant focus of this terminal alternatives assessment is expected to include gate expansion and international arrivals facilities. Further, long-term terminal development strategies that consider replacing or rehabilitating the Terminal A/B facilities will also be considered, along with alternate configurations and timing for the expansion of Terminal C, beyond Phase 2, and a future Terminal D. Consideration would be given as to whether Terminal D facilities are developed before Terminal C Phase 3 is constructed.

The analyses of terminal expansions or enhancements will include consideration of the airline operations areas, security, FIS facilities, curbfront requirements (for existing and future terminals), concessions, support facilities, passenger mobility, secure-side automated people mover connection between the North Terminal Complex and the South Terminal Complex, and other issues that will have a direct impact on terminal expansion and enhancement strategies. Documentation of the preferred terminal development strategy would include a concept narrative and illustrations of Blocking and Stacking (at last development phase), which would consist of the following:

- Site plans
- Aircraft parking layout
- Space plans
- Typical building sections

6.3.3 LANDSIDE

Ground access to/from the airport and landside capacity will be an increasingly important issue for MCO as passenger demand increases. This is true for all ground access modes, including personal automobiles, taxis, TNCs,

buses, limousines, and mass transit alike. The ground access plan will include, but not be limited to, recommendations for increasing roadway and curbside capacity, parking capacity, the overall level-of-service for ground transportation providers, Airport tenants distributed across the airport, and meeters/greeters and well-wishers that pick up or drop off passengers at MCO. Roadway alternatives would be developed in close coordination with the Mobility Master Plan (Task 5).

The Ricondo Team will develop up to six landside development alternatives that provide sufficient capacity to meet passenger demand levels, operational and other programmatic requirements, consider other regional transportation initiatives, and meet the Aviation Authority's objectives. Based on the facility requirements, the landside development alternatives comprised of the various options for each landside element (i.e., terminal curbfront, commercial vehicle operations, employee/public parking, rental cars, cell phone waiting areas, etc.) will be identified. The landside alternatives will be defined in coordination with the terminal alternatives being considered.

6.3.4 SUPPORT FACILITIES AND NON-AERONAUTICAL DEVELOPMENT

As commercial activity at the airport increases, important strategic decisions will need to be made with respect to the highest and best use of Airport property and the most efficient operation of its airfield. Such decisions could have a direct impact on the way the airport accommodates various segments of the aviation industry, most notably for MCO – general aviation, as well as other aviation-related businesses catering to cargo, aircraft maintenance, and others. The main objective will be to assure that MCO property is effectively used for economically productive purposes that:

- Meet the long-term aeronautical requirements
- Are compatible with aircraft noise and airport safety requirements
- Satisfy all grant compliance requirements of the FAA
- Provide maximum economic return to the airport
- Position the Aviation Authority to be a leader in the evolution of mobility and drive advancements in emerging aviation industries (such as AAM), and fostering economic growth within the region
- Contribute to business recruitment and retention, stimulation of local employment, neighborhood rehabilitation and infrastructure improvement, and improved quality of life

A series of options for utilization of surplus property within the airport boundary area (i.e., aviation support, aviation related commercial/distribution, non-aviation related retail/industrial and other uses) will also be formulated. This includes identifying up to three (3) sites for a second on-airport hotel that can be further studied (separate from the Master Plan Update) by a specialty consultant to be retained by the Aviation Authority. These series of options, described above, will include identifying areas that could support development opportunities identified in the 2023 Strategic Plan – including Objective 4.1.2 the ("Innovation City" campus).

This task also includes the identification and assessment of sites and development concepts for office, warehousing, storage, and other support spaces needed for the Aviation Authority's existing and future administration, maintenance, and operations functions. Three work sessions with Aviation Authority staff will be performed as the site and development concepts are identified and assessed to ensure they are responsive to the Aviation Authority's immediate and long-term needs.

6.4 INITIAL SCREENING OF ALTERNATIVES

Screening criteria will be identified through discussions with Aviation Authority staff and may include several of the items listed below:

- Compatibility with the Aviation Authority's Strategic Plan Goals and Objectives
- Extent of capacity enhancement or improvement to efficiency;
- Incremental development opportunities (i.e., can you gradually evolve from the existing conditions to the proposed long-term airport concept reflected by the long-term strategic option);
- Impacts to natural environmental features;
- Land use compatibility;
- Constructability and ease of implementation phasing;
- Benefit(s) from an airline operational cost perspective;
- Operational considerations;
- Airport security benefits (or conversely, impacts)
- Planning level development/construction costs;
- Conformity with level of service criteria (if applicable);
- Flexibility and future expansion potential;
- Other factors identified by the Aviation Authority.

Separate sets of screening criteria may be developed for specific analyses of the alternatives, or certain elements of the alternatives. Thus, there may be additional screening criteria identified and tailored for assessing specific elements of the alternatives and their characteristics.

6.4.1 DYNAMIC SIMULATION MODELING OF SHORT-LISTED ALTERNATIVES

Changes to the ultimate airfield configuration and/or land use, in addition to changes to the supporting taxiway system would be assessed. Additionally, changes to landside access and circulation roadways will also be considered. The capacity assessments completed in Task 4 would estimate the capacity of these systems. However, potential changes to airside and landside elements necessitate more detailed analysis (simulation modeling) to better evaluate alternatives.

6.4.1.1 AIRFIELD SIMULATIONS

The primary purpose of airfield simulation modeling is to assess aircraft circulation movements, travel times, and delays for the proposed development alternatives. First, baseline models need to be developed so that performance metrics for the various alternatives can be compared to measure operational improvements or constraints. Existing conditions models would first be developed and calibrated to historical conditions. The models would then be updated to baseline assumptions. The base models would be run at the base year (2024) plus three planning activity levels to define a baseline exponential delay curve. The baseline results then would be compared with simulation results of the proposed development alternatives to estimate the delay benefits and help determine when particular developments are required to meet the demand. The baseline results would also be used to estimate maximum runway throughput capability to support the ASV calculation.

The airfield simulation models would reflect typical operating conditions during periods of predominant flows (south flow and north flow) in visual meteorological conditions (VMC). The airfield operating configurations to be simulated would be defined to account for potential future operations and runway utilizations that may not be reflected in historical data. This effort would include the following subtasks:

- Develop and Calibrate Existing Conditions Models: The existing conditions model would reflect 2024 operating conditions. Historical operational data would be collected for the peak month corresponding with the predominant flow and nominal weather conditions and with activity as close as possible to the 2024 design day. Outputs from the calibrated simulation model including runway utilization, rolling hour runway throughput, and average taxi-in and -out time would be compared to historical data to confirm that the model is sufficiently capable of approximating typical real-world conditions. Model animations can also be reviewed by stakeholders familiar with the operation of the airport (e.g., representatives of airside operations and/or air traffic controllers) to visually confirm that the models are sufficiently able to approximate actual operations. The level of detail required in the models would influence the tool to be used and the amount of time and effort required to complete the modeling.
- Develop and Run Baseline Models: The calibrated existing conditions models would be updated to include near-term environmentally approved and funded projects that would differentiate the existing and baseline airfields. The baseline models would be run at 2024 and three future activity levels to establish a baseline exponential delay curve.
- Compile and Analyze Statistics: Model results and statistics would be compiled and analyzed to identify the performance of the existing airfield. All models would be run for 10 iterations with variation from iteration to iteration based on random distributions established for key model settings during the calibration process to account for real-world variation in flight times, aircraft performance, and pilot and air traffic control responsiveness. This would ensure the model robustness (i.e., would ensure that the model can run under realistically varied conditions) and provides average outputs more statistically consistent with what would be measured over a series of typical busy days in the year that each DDFS is intended to represent.

Upon completion of the airfield and airspace simulation model runs, all raw model outputs would be provided in tabular form. Results would be documented in summary tables that allow the performance of the various development alternatives to be compared based on metrics derived from model outputs. The metrics used to measure the performance of the airfield and airspace simulation model would include:

- average travel time and delay (minutes per aircraft operation)
  - airborne
  - ground (taxi)
  - arrival
  - departure
  - unimpeded travel time
  - total travel time (unimpeded + delay)
- runway throughput (aircraft operations per hour)
  - arrivals
  - departures

- combined arrival and departure
- rolling hour
- peak hour

6.4.1.2 TERMINAL CURBSIDE SIMULATIONS

Curbside simulation models developed in Task 4.5.1 to analyze curb performance would be updated to model the preferred alternative. Model outputs such as level of service, queue lengths, and travel times will be produced to demonstrate the effectiveness of the alternative. Roadway simulations of the preferred alternative would be coordinated through the Mobility Master Plan (Task 5), being completed by others.

6.5 PREFERRED INTEGRATED ALTERNATIVE

This task involves integrating the discrete functional area concept alternatives and identifying a preferred Airport development alternative (Preferred Alternative). The Ricondo Team anticipates that during the evaluation of alternatives and selection of the Preferred Alternative, issues may be identified relative to the various factors evaluated (standards, operations, phasing, cost/affordability, or other factors) that require further refinement. This task would therefore also focus on refining the Preferred Alternative to respond to any of the issues identified during the evaluation and selection process.

In coordination with the Aviation Authority, the Ricondo Team would review the Preferred Alternative and refine or adjust elements as needed, based on results of previous tasks, in each of the following functional areas:

- airfield
- terminal area
- landside
- support facility refinement, to ensure compatibility with the terminal and landside/transportation plan
- non-aeronautical development, such as an Innovation City campus

A more detailed description and summary of the various efforts included in this task are described in the following subtasks.

6.5.1 DEVELOP INTEGRATED ALTERNATIVES

From the functional area concept alternatives developed in Tasks 6.3.1 to 6.3.4, the Ricondo Team would create up to four integrated alternatives that encompass all functional areas. Individual components would be combined into integrated concepts and would be refined and modified as necessary to combine the various component pieces. The alternatives would seek a balanced and optimal interface among functional areas, considering the need to maintain flexibility over the 20-year planning horizon. The integrated alternatives would include sufficient detail to assess operational capabilities, financial feasibility and impacts to air carrier costs, and plan flexibility to accommodate alternative demand scenarios.

A key element of this task will be selecting a land use hierarchy. While MCO has extensive overall land reserves, different airport functions have unique site needs. For example, terminal facilities require proximity to both airfield and parking facilities and due to the size of facilities, often need large contiguous developable areas. Aircraft Rescue and Firefighting Facilities (ARFF) need much smaller areas in comparison to terminal facilities – but they must be specifically sited to have timed access to each runway end at the airport. These unique requirements often mean

than different functions compete for a limited number of compatible areas. A land use hierarchy helps address competing needs by prioritizing certain types of development (e.g., airfield development supersedes cargo development when both functions are competing for a site).

6.5.2 FACILITATE SELECTION OF PREFERRED ALTERNATIVE

The Ricondo Team will guide the Aviation Authority through the work of evaluating and identifying a Preferred Alternative. The process would unfold over a series of two workshops. First, the Ricondo Team would conduct an initial high-level evaluation of the four integrated alternatives, focusing on the integrated alternatives' ability to accommodate forecast aviation demand in a physically and operationally efficient manner. This evaluation would be shared in advance of the first workshop and refined in collaboration with Aviation Authority staff during the first workshop.

In advance of the second workshop, it is anticipated the Ricondo Team will make minor revisions to the integrated alternatives in response to feedback received during the first workshop and the results of the preliminary evaluation. More detail assessments of each integrated alternative will be prepared focusing on the extent of capacity enhancement, efficiency improvement, cost, environmental considerations, land use compatibility, ease of phasing, LOS, flexibility, development off-ramps, and alignment with Aviation Authority Strategic Plan objectives. The Ricondo Team would present updated alternatives and evaluation information to Aviation Authority staff during the second workshop and work collaboratively with Aviation Authority staff to rank each of the four alternatives and select a Preferred Alternative.

6.6 ALTERNATIVES EVALUATION MEETINGS

TABLE 6-1 ALTERNATIVES DEFINITION AND EVALUATION: MEETINGS

COORDINATING ENTITY/SURVEY	ASSOCIATED SUBTASK	ON-SITE VS. VIRTUAL	NUMBER OF MEETINGS/SURVEYS	ANTICIPATED MEETING DURATION (EACH MEETING)	NUMBER OF RICONDO TEAM PARTICIPANTS
Alternatives Initiation and Strategy Session	General	On-Site	1	2 hours	3
Airfield Alternatives Review	Airfield	On-Site	2	2 hours	3
Terminal Alternatives Review	Terminal	On-Site	2	2 hours	3
Cargo Alternatives Review	Cargo	On-Site	2	2 hours	3
General Aviation Alternatives Review	GA	On-Site	2	2 hours	3
Landside Alternatives Review	Landside	On-Site	2	2 hours	3
Support Facilities Alternatives Review	Support	On-Site	2	2 hours	3
Airfield Simulation Review	Airfield	On-Site	2	2 hours	4
Terminal Curbside Simulation Review	Landside	On-Site	2	2 hours	4
Alternatives Shortlist	General	On-Site	1	2 hours	4
Integrated Alternatives Review	General	On-Site	2	2 hours	4
Selection of Preferred Alternative	General	On-Site	2	2 hours	4

SOURCE: Ricondo & Associates, Inc., August 2024.

6.7 DRAFT ALTERNATIVES WORKING PAPER

An Alternatives Working Paper will be developed to summarize and document the planning analyses undertaken as part of **Task 6**. The development of the Alternatives Working Paper will incorporate two revision rounds: (1) preliminary draft for Aviation Authority review and comment and (2) final draft for Aviation Authority review and comment. The second round of comments/revisions will be incorporated into the final chapter of the MPU.

ALTERNATIVES DEFINITION AND EVALUATION: SUMMARY OF DELIVERABLES

TABLE 6-2 ALTERNATIVES DEFINITION AND EVALUATION: DELIVERABLES

DELIVERABLES	ELECTRONIC VS. HARD COPY	NUMBER OF COPIES
Preliminary Alternatives Presentation	Electronic	N/A
Draft Alternatives Presentation	Electronic	N/A
Final Alternatives Presentation	Electronic	N/A
Preliminary Draft Working Paper for Aviation Authority Review and Comment	Electronic	N/A
Final Draft Working Paper for Aviation Authority Review and Comment	Electronic	N/A
Final Alternatives Definition and Evaluation Chapter	Electronic	N/A

NOTE:
N/A – Not Applicable
SOURCE: Ricondo & Associates, Inc., August 2024.

7. REFINEMENT OF THE PREFERRED AIRPORT DEVELOPMENT ALTERNATIVE

It is anticipated that during the evaluation of alternatives and selection of the Preferred Airport Development Alternative (Preferred Alternative), issues may be identified relative to the various factors evaluated (standards, operations, phasing, cost/affordability, or other factors) that will require further refinement. This task will focus on refining the Preferred Alternative to respond to any of the issues identified during the evaluation and selection process.

The Ricondo Team will review the Preferred Alternative and refine or adjust elements as needed, based on results of previous tasks, in each of the following functional areas:

- airfield
- terminal areas
- landside and transportation
- support facilities (to ensure compatibility with the terminal and landside/transportation plan)

A more detailed description and summary of the various subtasks included in the refinement of alternatives is provided in the following subtasks.

7.1 ALTERNATIVES REFINEMENT

This subtask will be completed in close coordination and consultation with Aviation Authority staff and other stakeholders. It is important to recognize that a preferred alternative is defined for the purpose of providing a basis for updating the ALP and to conduct further analyses (e.g., financial).

In addition, this subtask will serve to expand the level of detail and analysis provided for the Preferred Alternative. Additional detail will be provided relative to overall facility layouts, general layout of interior spaces, implementation impacts, costs and financial impacts, and sensitivity to alternate demand scenarios. As necessary, the Preferred Alternative will be refined relative to specific issues that may have been raised by Aviation Authority staff or other parties during the evaluation and selection process. Variations of the selected long-term alternative may be developed and analyzed using the same evaluation criteria developed for the evaluation of shortlisted alternatives.

The refinement of the Preferred Alternative will conclude with the preparation of an AutoCAD drawing depicting the following elements, among others (configured as suggested by the selected development alternative):

- prominent Airport facilities such as runways, taxiways, aprons, holding bays, blast pads, extended runway safety areas, buildings, NAVAIDs, parking areas, and roads
- 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
- support facilities including GA, cargo, and fueling facilities

- approach and departure surfaces and Runway Protection Zone (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), and parallel runway separation

7.2 PREFERRED ALTERNATIVE RENDERINGS

The refined Preferred Alternative will be illustrated in two-dimensional drawings, as well as three-dimensional dynamic models, to be delivered as up to three high-resolution, three-dimensional rendering images. These drawings and models will illustrate the exterior and interior geometries, spatial layouts, passenger flows, aircraft movements, and landside system flows. The renderings will be used to support presentations to the Aviation Authority's Board, public workshops, and stakeholder meetings.

7.3 PREFERRED ALTERNATIVE MEETINGS

Up to four additional working session meetings will be conducted by the Ricondo Team during this task. This will include up to two on-site working sessions in support of the refinement of the Preferred Alternative and two virtual additional working sessions in support of the development of the three-dimensional renderings. For each working session meeting listed, the Ricondo Team will prepare an agenda, discussion materials, sign-in sheets, and meeting notes.

TABLE 7-1 REFINEMENT OF THE PREFERRED ALTERNATIVE: MEETINGS

COORDINATING ENTITY	ON-SITE VS. VIRTUAL	NUMBER OF MEETINGS	ANTICIPATED MEETING DURATION (EACH MEETING)	NUMBER OF RICONDO TEAM PARTICIPANTS
Leadership Team	On-Site	2	2 hours	4
Aviation Authority Planning Team	Virtual	2	2 hours	4

SOURCE: Ricondo & Associates, Inc., August 2024.

7.4 DRAFT DELIVERABLES

Drawings of the refined Preferred Alternative will be developed in AutoCAD and submitted for the Aviation Authority's review and comments. Ricondo will also work collaboratively with the Aviation Authority to identify final refinements in each of the functional areas. Renderings will be provided in JPEG and PDF format.

Other deliverables associated with this task include the meeting materials associated with the on-site meetings prescribed for the previous task; an illustration of the composite development associated with the Preferred Alternative; and three-dimensional renderings, which are anticipated as modifications to prior renderings delivered.

REFINEMENT OF THE PREFERRED AIRPORT ALTERNATIVE: SUMMARY OF DELIVERABLES

TABLE 7-2 REFINEMENT OF THE PREFERRED ALTERNATIVE: DELIVERABLES

DELIVERABLES	ELECTRONIC VS. HARD COPY	NUMBER OF COPIES
Illustration of the Composite Development Associated with the Preferred Alternative	Electronic	N/A
Preferred Alternative Renderings	Electronic	N/A

NOTE:
N/A – Not Applicable
SOURCE: Ricondo & Associates, Inc., August 2024.

8. IMPLEMENTATION PLAN FOR FUTURE IMPROVEMENTS AND NEW CAPITAL PROJECTS

The master planning process will contribute to the updating of the Aviation Authority's Capital Improvement Program (CIP) for MCO to reflect present and future needs relative to facility and infrastructure preservation, renovation, or modernization; capacity enhancements for existing Airport assets; climate adaptation projects for infrastructure resiliency; and capital investments needed to support or nurture growth in nonaeronautical revenues. The future improvements, defined in terms of new capital projects for inclusion into the CIP will outline, in priority form, the various projects anticipated to be undertaken by the Aviation Authority on an annual basis for the 20-year horizon. The MPU scope of services does not include an update to the Aviation Authority's overall CIP since the CIP includes projects that are defined outside of the master planning process for MCO, and also includes projects for ORL, however, the MPU will identify capital projects for inclusion into the overall CIP. The proposed projects would be phased over time to optimally balance: (1) Airport facility or infrastructure needs; (2) the ability to maximize the receipt and use of federal and state funds; and (3) the affordability for undertaking the proposed project(s) given the rate structure desired by the Aviation Authority's leadership team and Board.

Items of Work Not Included in this Task

- preparation of PFC or grant applications
- preliminary engineering or architectural analysis
- debt capacity analysis
- assessment and financial modeling of rates and charges impacts

TABLE 8-1 IMPLEMENTATION PLAN: DELIVERABLES

DELIVERABLES	ELECTRONIC VS. HARD COPY	NUMBER OF COPIES
Preliminary Draft Capital Projects and Implementation Plan Working Paper for Aviation Authority Review and Comment	Electronic	N/A
Final Draft Capital Projects and Implementation Plan Working Paper for Aviation Authority Review and Comment	Electronic	N/A
Final Capital Projects and Implementation Plan Working Paper	Electronic	N/A

NOTES:
N/A - Not Applicable
SOURCE: Ricondo & Associates, Inc., August 2024.

TABLE 8-2 IMPLEMENTATION PLAN: MEETINGS

COORDINATING ENTITY	ON-SITE VS. VIRTUAL	NUMBER OF MEETINGS	ANTICIPATED MEETING DURATION (EACH MEETING)	NUMBER OF RICONDO TEAM PARTICIPANTS
Aviation Authority /CIP Project Priorities	On-Site	1	2 hours	3
Aviation Authority /Cost Estimates Review	On-Site	1	2 hours	3
Aviation Authority /Cost Estimates Review	Virtual	2	2 hours	3
Aviation Authority /Funding Sources Strategies	Virtual	2	2 hours	3
Aviation Authority /Implementation Schedule	On-Site	2	2 hours	3

SOURCE: Ricondo & Associates, Inc., August 2024.

8.1 BUSINESS CASE AND SCOPE FRAMEWORK FOR DIGITAL TWIN CAPITAL INVESTMENT

As part of this task, the Ricondo Team will engage subject matter experts in airport-deployed asset management systems to assess the advantages and disadvantages for investing in a digital twin for MCO, or if appropriate, some other derivative form of asset management that may be a more appropriate option for the Aviation Authority to consider in lieu of a digital twin. This assessment includes: a benchmarking of up to two comparable airports that have invested in a digital twin for purposes of gaining lessons learned from such investment; formulation of an advantages and disadvantage matrix for investing in a digital twin; and an onsite workshop, anticipated to last up to three (3) hours to discuss the preliminary findings of this assessment between the Aviation Authority and the subject matter experts identified for this task. Following the workshop, if it is determined by the Aviation Authority that a digital twin, or some other derivative form of asset management is desirable for MCO, a general scope of work outline/framework for moving forward with the procurement for the advancement and development of the desired tool (or system) outside of the MPU will be prepared.

The results of the scope of services described above for this task will be documented in a business case document, containing the results of the assessment.

8.2 SHORT-, MID-, AND LONG-TERM CAPITAL PROJECTS AND IMPLEMENTATION SCHEDULE

The Ricondo Team will divide the MPU's Preferred Alternative plan into discrete projects. The projects will become the basis for consideration by the Aviation Authority for inclusion in the airport's CIP. Aviation Authority staff will summarize the current needs and priorities for MCO, including maintenance and existing facility rehabilitation needs. In consultation with Aviation Authority staff, each project in the recommended development plan (i.e., the Preferred Alternative) will be assigned to a particular planning term (short-term [0-5 years], mid-term [5 -10 years], or long-term [beyond 10 years]). Each project will be individually described in sufficient detail to describe the nature and purpose of the project, potential conflicts or dependencies with other projects, projects that must occur to enable completion, justification for the project (i.e., the type of information required in the Joint Automated CIP hosted by the FAA and FDOT), and rough order of magnitude (ROM) cost estimates. This task will include the identification of demand triggers associated with the key development projects.

A preliminary implementation plan for the capital projects resulting from the MPU's Preferred Alternative will provide the Aviation Authority, FDOT, and FAA with the information needed to integrate the MPU's recommendations with daily MCO operations and other ongoing development projects. This will be particularly

important regarding the short-term horizon. The implementation plan will balance funding constraints; project sequencing limitations, including a review of project enablers; environmental processing requirements; agency and tenant approvals and coordination processes; business issues (leases and property acquisition or disposition); and other Aviation Authority preferences.

The Ricondo Team will prepare a preliminary timeline for the short-, mid-, and long-term capital projects based on the demand forecast and recommendations proposed in the MPU. The analysis will focus on the determination of the following key pieces of information:

- What is the recommended timeline for the expansion of Terminal C, Terminal D, and associated projects? How does this new terminal development balance and integrate refurbishment, modernization, and/or redevelopment actions needed or recommended for the North Terminal facilities?
- When must a given improvement be completed to meet the anticipated demand or to provide improved operational efficiency?
- How long will it take to implement the improvement?
- What enabling projects must be implemented as part of the improvement? Are there any project dependencies that must also be considered?

Project phasing will consider enabling projects or actions that affect the sequence of construction. The time required to implement a given improvement will be based on schedule data from recent projects at MCO and industry standards.

Ricondo will prepare a phasing timeline of major elements in the 20-year planning horizon in Microsoft Project or Excel format. Phasing drawings will also be prepared in AutoCAD for the short-, mid-, and long-term planning horizons.

8.3 ROUGH ORDER OF MAGNITUDE COST ESTIMATES

Rough order of magnitude (ROM) cost estimates will be prepared for each recommended capital project for the 20-year planning horizon, considering inflation rates, with additional details provided for the short-term projects. The estimates will be prepared with sufficient detail to provide the level of confidence expected for use in the Aviation Authority's financial planning, capital programming, and CIP implementation initiatives. These will include design, surveying, permitting, geotechnical, construction administration and other administrative expenses, contingency allowance, other soft costs, and construction costs.

This scope of work assumes that ROM cost estimates would only be prepared for the MPU projects to be recommended for implementation. For budgeting purposes, it has been assumed that cost estimates would be prepared for a maximum of 35 projects (including project enablers). The ROM cost estimates will reflect current-year dollars and projected future costs taking into consideration inflation rate assumptions.

8.4 FUNDING SOURCE STRATEGIES

The purpose of this task is to identify the funding sources available to support the proposed capital projects for MCO. Potential funding sources for the planned capital development may include the following: federal grants, both entitlement and discretionary; state grants; PFC, both on a pay-as-you-go basis and leveraged basis; general airport revenue bonds; a customer facility charge (CFC); Aviation Authority funds; and other, which may include third-party financing, special facility financing, etc. The determination of the preferred funding source strategy will be based, in

part, on the availability of each funding source; and the ability of the Aviation Authority to access any source. This task will be performed in close coordination with the Aviation Authority's finance department/team since such funding sources may be partly or wholly committed to other projects in MCO's CIP.

8.5 FINANCIAL ANALYSIS SUPPORT

In conjunction with the overall CIP for MCO, it is anticipated that a financial analysis will be undertaken by the Aviation Authority to provide a realistic, implementable plan for undertaking the capital projects, as well as other Airport facility or revenue enhancement opportunities identified in the MPU.

The Aviation Authority (with potential assistance from its financial planning consultant) will be responsible for the update of the financial models. The Ricondo Team will assist the Aviation Authority by providing the model inputs including MPU project ROM cost estimates and potential funding sources. The Aviation Authority will take this information and input into their rates and charges model to develop the multi-year financial projections and determine the airline rates and charges resulting from undertaking the planned capital development program. As needed and in consultation with the Aviation Authority, the Ricondo Team will refine the funding strategies established in Task 8.4 based on the financial impacts to the airlines serving MCO and Aviation Authority policies and preferences. As the Aviation Authority evaluates its preferred funding alternatives, the Ricondo Team may be requested to provide other funding options that better support the goals and objectives of the Aviation Authority.

8.6 CAPITAL PROJECTS IMPLEMENTATION SCHEDULE UPDATE

Input from the Aviation Authority's finance department/team could result in changes to the timing, or length, of various elements of the recommended capital projects, as defined in the preliminary implementation plan. Based on this feedback, an updated and final implementation schedule will be prepared. Phasing drawings for the short-, mid-, and long-term planning horizons will be updated. The final phasing plan will be used to develop the ALP drawings in a subsequent task.

8.7 CAPITAL PROJECTS AND IMPLEMENTATION PLAN MEETINGS

For budgeting purposes, it is assumed that the Ricondo Team would participate in up to eight meetings with Aviation Authority staff for this task. These meetings are assumed to last two hours, with three Ricondo Team representatives at each meeting. It is envisioned that these meetings would be held at the following milestones:

- Task initiation meeting (establish preliminary capital project sequencing priorities; Task 8.1) – one on-site meeting
- Review of ROM cost estimates (Tasks 8.3):
- two virtual meetings with the Aviation Authority
- one on-site meeting with the Aviation Authority
- Review funding source strategies (Task 8.4) – two virtual meetings
- Update CIP implementation schedule (Tasks 8.5 and 8.6) – two on-site meetings

For each meeting listed, the Ricondo Team will prepare an agenda, discussion materials, sign-in sheets, and meeting summary notes.

8.8 DRAFT CAPITAL PROJECTS AND IMPLEMENTATION PLAN WORKING PAPER

The Capital Projects and Implementation Plan Working Paper will be prepared to summarize the approach, methodologies, planning considerations, and results from the Implementation Planning analyses. A preliminary draft version of the working paper will be submitted to the Aviation Authority for review and comment. Comments/revisions provided by the Aviation Authority will be addressed and incorporated as appropriate into the draft MPU Report.

9. ENVIRONMENTAL OVERVIEW

Prior to implementation of the recommended Master Plan Preferred Alternative projects, the potential environmental effects of each project should be reviewed to identify issues and studies that may be needed to support future project review under NEPA. Therefore, the environmental overview summarizes the environmental review considerations related to the set of recommended development projects identified in the Master Plan to support the development of an environmental processing strategy for Master Plan Preferred Alternative projects.

9.1 OUTLINE OF NATIONAL ENVIRONMENTAL POLICY ACT (NEPA) REQUIREMENTS

The environmental overview will include the following:

- overview of FAA approval authority considerations (Section 743 of FAA Reauthorization Act of 2024)
- overview of NEPA processing
- review of recommended Master Plan Preferred Alternative projects for potential eligibility for categorical exclusion under NEPA
- review of environmental considerations for recommended Master Plan preferred alternative projects based on environmental resources identified in the environmental inventory (e.g., air quality, biological resources, climate, farmlands, Section 4[f] resources, hazardous materials, cultural resources, land use, natural resources and energy supply, noise and compatible land use, socioeconomics, visual effects, and water resources)
- discussion of NEPA processing strategy

The environmental overview will not include detailed analyses of environmental impacts or assess whether the impacts would be considered significant under NEPA. Rather, it provides a guide to support future environmental review of Master Plan Preferred Alternative projects.

9.1.1 NATIONAL ENVIRONMENTAL POLICY ACT STRATEGY WORKSHOP

The Ricondo Team will convene a NEPA strategy workshop to review the environmental overview findings with Aviation Authority staff and to refine assumptions for inclusion in the Master Plan documentation. A 2-hour workshop with key Aviation Authority planning staff and Ricondo Team members is assumed.

In addition to the workshop, the Ricondo Team will participate in up to two coordination meetings with Aviation Authority staff to review the materials to be presented at the workshop. For budgeting purposes, it has been assumed that these meetings would last 2 hours and be attended by three Ricondo Team members. These meetings will include the following:

- review of preliminary draft workshop materials with Aviation Authority key planning staff
- review of draft workshop materials with Aviation Authority key planning staff

9.2 OTHER ENVIRONMENTAL CONSIDERATIONS

The Ricondo Team will identify non-NEPA environmental considerations related to federal, state and local permitting and approvals. This will address the current regulatory environment as well as the implications of changes such as

the reversal of Section 404 permitting delegation from the State of Florida to the Department of the Army, Corps of Engineers and the revisions to state water quality guidelines and stormwater permitting requirements. This effort will primarily focus on issues that have the potential to delay project implementation or affect the physical approach to a project in a meaningful way.

9.3 ENVIRONMENTAL OVERVIEW MEETINGS

The Ricondo Team will participate in up to two coordination meetings with Aviation Authority staff to discuss various aspects of the Environmental Overview. For budgeting purposes, it has been assumed that these meetings would last 2 hours and be attended by up to three Ricondo Team members.

TABLE 9-1 ENVIRONMENTAL OVERVIEW: MEETINGS

COORDINATING ENTITY	ON-SITE VS. VIRTUAL	NUMBER OF MEETINGS	ANTICIPATED MEETING DURATION (EACH MEETING)	NUMBER OF RICONDO TEAM PARTICIPANTS
Aviation Authority Environmental Staff	On-Site	2	2 hours	3

SOURCE: Ricondo & Associates, Inc., August 2024.

9.4 ENVIRONMENTAL OVERVIEW WORKING PAPER

A preliminary draft version of the Environmental Overview Working Paper that describes the findings of the environmental analysis for the Preferred Alternative, which includes maps, diagrams, tables, and text, will be submitted to the Aviation Authority for review and comment. This does not include modeling of air quality or greenhouse gas emissions or noise. The review and comment process for the Environmental Overview Working Paper will incorporate two revision rounds: (1) preliminary draft for Aviation Authority review and comment and (2) final draft for Aviation Authority review and comment. The second round of comments/revisions will be incorporated into the draft Master Plan chapter and will remain until final comments are solicited at submission of the draft Master Plan document.

ENVIRONMENTAL OVERVIEW: SUMMARY OF DELIVERABLES

TABLE 9-2 ENVIRONMENTAL OVERVIEW: DELIVERABLES

DELIVERABLES	ELECTRONIC VS. HARD COPY	NUMBER OF COPIES
Preliminary Draft Working Paper for Aviation Authority Review and Comment	Electronic	N/A
Final Draft Working Paper for Aviation Authority Review and Comment	Electronic	N/A
Final Environmental Overview Chapter	Electronic	N/A

NOTE:
N/A – Not Applicable
SOURCE: Ricondo & Associates, Inc., August 2024.

10. SUSTAINABILITY STRATEGY

The Ricondo Team will derive a set of sustainability initiatives relevant to the MPU to support further definition and advancement of a sustainability program for MCO.

10.1 SUSTAINABILITY INITIATIVES

The Ricondo Team will identify a list of recommended sustainability initiatives for the MPU and conduct a preliminary review with key Aviation Authority staff on a teleconference call. It is assumed that the interest in sustainability projects with physical footprints that would be reflected on the ALP (e.g., a solar farm) would be identified in collaboration with Aviation Authority staff, and then the project would be refined during the MPU alternatives analysis and identified as a MPU recommended capital project. These types of initiatives would be discussed as part of the sustainability strategy, rather than as an outcome of the sustainability strategy task, to ensure appropriate land is allocated to the project during planning.

Based on feedback from Aviation Authority staff, the Ricondo Team will refine the list of recommended sustainability initiatives and convene a 2-hour workshop to review sustainability initiatives and strategy with Aviation Authority staff and stakeholders. The workshop's desired outcome is identifying sustainability initiatives for inclusion in the MPU.

Documentation of the sustainability strategy will describe the process followed to identify sustainability initiatives and implementation strategy based on general airport best practices for implementing and tracking sustainability.

10.2 SUSTAINABILITY STRATEGY MEETINGS

For each meeting, Ricondo will prepare agendas, discussion materials, sign-in sheets, and meeting notes. **Table 10-1** summarizes the number of meetings anticipated for each Sustainability Strategy task.

TABLE 10-1 SUSTAINABILITY STRATEGY: MEETINGS

COORDINATING ENTITY	ON-SITE VS. VIRTUAL	NUMBER OF MEETINGS	ANTICIPATED MEETING DURATION (EACH MEETING)	NUMBER OF RICONDO TEAM PARTICIPANTS
Meeting with Aviation Authority to Review Preliminary List of Strategies	Virtual	1	1 hour	3
Sustainability Strategy Workshop	On-Site	1	2 hours	3

SOURCE: Ricondo & Associates, Inc., August 2024.

10.3 DRAFT SUSTAINABILITY STRATEGY WORKING PAPER

A draft Sustainability Initiatives Strategy Working Paper summarizing the findings of each of the preceding tasks will be prepared and provided to Aviation Authority staff for review. Comments/revisions provided by the Aviation Authority will be addressed and incorporated as appropriate into the draft MPU Report.

SUSTAINABILITY STRATEGY: SUMMARY OF DELIVERABLES

TABLE 10-2 SUSTAINABILITY STRATEGY: DELIVERABLES

DELIVERABLES	ELECTRONIC VS. HARD COPY	NUMBER OF COPIES
Preliminary Draft Sustainability Strategy Working Paper for Aviation Authority Review and Comment	Electronic	N/A
Draft Sustainability Strategy Working Paper for Aviation Authority Review and Comment	Electronic	N/A

NOTE:
N/A – Not Applicable
SOURCE: Ricondo & Associates, Inc., August 2024.

11. PHOTOGRAMMETRY AND FAA AIRPORTS-GIS

The following subsections provide an overview of the tasks that would need to be completed to prepare a new basemap for MCO.

11.1 PROJECT PLANNING / FAA AIRPORTS-GIS COORDINATION / FIELD SURVEY COORDINATION

The Ricondo Team will develop, submit, and gain the FAA required approval of the "Statement of Work" for the project through the airports District Office (ADO) and FAA Airports-GIS. The Ricondo Team will also develop, submit, and gain approval of the "Imagery/Remote Sensing Plan" and the "Survey & Quality Control Plan" required by the FAA Airports-GIS Program.

11.2 AERIAL IMAGERY ACQUISITION

New color aerial imagery will be captured 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. This imagery will be utilized for all photogrammetric data extraction, including airfield planimetric/topographic mapping and AGIS/Part 77/Threshold Siting Surface (TSS) Airport Airspace Analysis. Furthermore, orthophotos be generated from this imagery with a final resolution of 0.50 feet Ground Sampling Distance (GSD).

11.3 ESTABLISH GEODETIC CONTROL / VALIDATE EXISTING PACS/SACS

There are currently two Primary Airport Control Station (PACS) monument and four Secondary Airport Control Station (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, in accordance with AC-150/5300-16B. Geodetic data will be tied to the NSRS using the latest published adjustment (2011).

11.4 SURVEY IMAGERY PHOTO CONTROL

Photo-identifiable features will be selected & 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 AP Acquisition Report. It is anticipated that approximately 30 imagery control points will be required, along with 6 independent On-line Positioning User Service (OPUS) checkpoints.

11.5 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.

11.6 DIGITAL ORTHO IMAGERY

Digital orthophotos will be produced to meet Aviation Authority requirements and to comply with the requirements of the FAA Airports-GIS program and AC 150/5300-17C. One set of ortho imagery will be produced with a final resolution of 0.50 feet GSD.

11.7 RUNWAY SURVEYS

Surveyors will accomplish field-survey of all runways at MCO (18L/36R, 18R/36L, 17L/35R, and 17R/35L). Survey tasks will include survey of runway-end-points and runway-profiles. For each runway-end-point a monument will be set (or recovered), surveyed, and documented in accordance with AC-150/5300-18B. In addition to the runway centerline, two 10-foot-offset profiles will be surveyed for each runway. Runway-centerline and offset profiles will be surveyed at a 5-foot interval utilizing mobile-RTK methodology. Multiple passes in opposite directions will be accomplished for all profiles for quality assurance purposes. Final profile data will be reduced to 10-foot stations. Runway survey data will be utilized for the airport Airspace Analysis/Obstruction Surveys task. Runway survey data will be reported in the FAA Airports-GIS deliverable.

11.8 NAVAID SURVEYS

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

11.9 AIRPORT AIRSPACE ANALYSIS/OBSTRUCTION SURVEYS

11.9.1 AC 150/5300-18B

An Airport Airspace Analysis will be performed in accordance with AC 150/5300-18B. This task will be performed in order to comply with the requirements of the FAA Airports-GIS Program for projects involving Airport Layout Plan updates. The airport Airspace Analysis will meet the following specifications:

- 18L/36R: Runways with vertical guidance
- 18R/36L: Runways with vertical guidance
- 17L/35R: Runways with vertical guidance
- 17R/35L: 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.

11.9.2 14 CFR PART 77/THRESHOLD SITING SURFACE

An FAR Part 77/TSS Obstruction Survey will be performed in support of the ALP Update. Using the digital stereo imagery, the prescribed Part 77 & TSS Obstruction-Identification-Surfaces will be examined and analyzed to identify natural and manmade objects penetrating the surfaces.

11.9.3 14 CFR PART 77 COLLECTION CRITERIA

The obstruction-identification-surfaces, defined in the previous section, will be digitally referenced with the 3D Stereo Imagery. Using 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 script 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:

- 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 center or middle.
- If a large group of trees or terrain (obstruction area) is found to penetrate a surface, representative selection criteria will be used. In this case, 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 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 10,000 feet of the approach surface and within the conical surface, 500-foot grid spacing will be used.

11.10 RAW OBSTACLE DATA COLLECTION

The Ricondo Team will complete raw obstacle data collection off the ends of each runway. The horizontal extents of the TERPS 40:1 Surface will serve as the limits for the raw obstacle collection. Within the first 10,000 feet of the TERPS 40:1 surface, the Ricondo Team will collect manmade and natural objects with no regards to 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 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.

11.11 PLANIMETRIC AND TOPOGRAPHIC MAPPING COMPILATION

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)

The planimetric and topographic mapping will be set based on the following assumptions and extend beyond the airport boundary:

- The mapping covers the existing RPZs
- The mapping includes the major roadways and interchange in the periphery of the airport.

11.12 MAPPING EDIT AND GIS FORMATTING

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

geospatial-related and/or critical attributes required for upload (per AC 150/5300-18B). The final AGIS file created by the Ricondo Team will include both safety-critical and non-safety-critical data, including the following:

- safety-critical data
  - Airport airspace analysis data (obstructions)
  - runway survey data
  - NAVAID survey data
- non-safety-critical data
  - planimetric data
  - topographic data

Final GIS data will meet the following specifications:

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

11.13 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 "Test-Survey-File" 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. Project close-out will also consist of ensuring receipt and acceptance of the obstruction survey and digital mapping data by the Aviation Authority, FAA, and NGS.

12. AIRPORT LAYOUT PLAN DRAWING SET

The ALP and the accompanying drawing sets comprise the official review document that is ultimately approved by the FAA following the master planning process. A traditional paper/PDF ALP set will be prepared in adherence with SOP 2.00, Standard Procedure for FAA Review and Approval of ALPs, and other applicable FAA ACs and guidance. It will also reflect existing and future (25-year) conditions, as recommended in the MPU. The survey data to be collected as part of this task will be formatted into compliant Airports-GIS format and submitted to the FAA Airport Data and Information Portal (ADIP) portal. The ALP will be sized and formatted for 48″ by 36″ plots.

12.1 TITLE SHEET

The Ricondo Team will prepare a title sheet in accordance with the FAA SOP 2.00 checklist. The title sheet will include the MCO ALP title and revision block; approval block space for an Aviation Authority representative's name and title, the FDOT, and the FAA; an index of the sheets contained in the set; an outline of the State of Florida with county boundaries, identifying Orange County; and maps of the general area and vicinity of the airport.

12.2 AIRPORT DATA SHEETS (2 SHEETS)

The Ricondo Team will prepare an airport data sheet in accordance with the FAA SOP 2.00 checklist. The airport data sheet will include the MCO ALP title and revision block; wind roses depicting runway coverage for all, visual, and instrument meteorological conditions; an airport data table summarizing general geographic, climatic, navigational, and referential information of the airport; a runway data table composed of existing and ultimate specifications for the size, strength, markings, design surfaces, and lighting of MCO's runways; a taxiway data table composed of existing and ultimate specifications for the size, design surfaces, and lighting of MCO's taxiways; a summary table of the FAA-approved and proposed modifications to standards; and a summary table of the existing and ultimate declared distances.

The airport data sheet may also include a table listing all acronyms and abbreviations used throughout the ALP sheet set. A second airport data sheet will be added if the volume of information cannot fit on a single 48″ by 36″ sheet.

12.3 AIRPORT LAYOUT PLAN DRAWINGS (3 SHEETS)

The Ricondo Team will prepare an airport layout plan (ALP) drawing in accordance with the FAA SOP 2.00 checklist depicting the existing facilities and topography of MCO within the extents of the Planimetric and Topographic Map from Task 11, *Photogrammetry and FAA Airports-GIS*. The ALP drawing will be presented as three separate sheets to ensure legibility and increase clarity for the facilities and projects that will be depicted.

12.3.1 EXISTING AIRPORT LAYOUT PLAN DRAWING

The existing ALP drawing will be illustrated with a plan view of the facilities that exist at the recording dates of the *Inventory of Existing Airport Conditions* over an aerial photograph of the airport and surrounding areas.

The existing ALP drawing will include the MCO ALP title and revision block; approval block space for the FAA; referential information of the airport including north arrows representing the true north, magnetic north, and the magnetic declination at MCO; topographic contours; annotated airfield facilities including runways, taxiways, aprons, pads, design surfaces, service roads, navigational aids, lighting, and structures; fences; roads; survey monuments;

general aviation and non-aeronautical development; and demolition. All depicted elements will be identified in a legend on the sheet. A line-of-sight/shadow study area for the existing Airport Traffic Control Tower (ATCT) is not anticipated.

The plan view of the existing ALP sheet will be drawn at a scale to ensure the full extents of the MCO property boundary and runway protection zones (RPZs) are depicted within the view. The drawing will be oriented for true or magnetic north toward the top of the sheet. The existing ALP sheet will match the scale, orientation, and plan view extents of the future and ultimate ALP sheets.

12.3.2 FUTURE AIRPORT LAYOUT PLAN DRAWING

The future ALP drawing will include all components of the existing ALP drawing with additional conceptual plan view depictions, annotations, and planning-level specifications of facilities that are under construction or otherwise planned, designed, and approved for construction before the undertaking of the MCO MPU. All depicted elements will be identified in a legend on the sheet. A line-of-sight/shadow study area for the ATCT is not anticipated for this drawing.

The plan view of the future ALP sheet will be drawn at a scale to ensure the full extents of the MCO property boundary and RPZs are depicted within the view. The drawing will be oriented for true or magnetic north toward the top of the sheet. The future ALP sheet will match the scale, orientation, and plan view extents of the existing and ultimate ALP sheets.

12.3.3 ULTIMATE AIRPORT LAYOUT PLAN DRAWING

The purpose of the ultimate ALP is to depict the development concepts which compose the preferred alternative identified in the *Alternatives Development and Evaluation*, Task 6.

The ultimate ALP drawing will include all components of the existing and future ALP drawings with additional conceptual plan view depictions, annotations, and planning-level specifications of development proposals of the MCO MPU identified in Task 6. All depicted elements will be identified in a legend on the sheet. A line-of-sight/shadow study area for the ATCT may be included depending on the development components of the preferred alternative.

The plan view of the ultimate ALP sheet will be drawn at a scale to ensure the full extents of the MCO property boundary and RPZs are depicted within the view. The drawing will be oriented for true or magnetic north toward the top of the sheet. The ultimate ALP sheet will match the scale, orientation, and plan view extents of the existing and future ALP sheets.

12.4 TERMINAL AREA DRAWINGS (6 SHEETS)

The Ricondo Team will prepare six (6) plan view drawings in accordance with the FAA SOP 2.00 checklist depicting the North Terminal Area and the South Terminal Area. The Terminal Area Drawings will be illustrated over an aerial photograph of the airport and surrounding areas with separate drawing sheets for the existing, future, and preferred alternative (or ultimate) facilities, matching the organization of the ALP Drawings. The purpose of the Terminal Area Drawings is to depict the development concept details for each individual terminal area as identified in the *Alternatives Development and Evaluation*, Task 6.

12.5 AIRPORT AIRSPACE DRAWINGS (2 SHEETS)

The Ricondo Team will prepare two (2) plan view airport airspace drawings in accordance with the FAA SOP 2.00 checklist depicting the ultimate civil airport imagery surfaces of MCO as defined in 14 CFR Part 77, or Part 77. Both sheets will use the U.S. Geological Survey (USGS) Quad Sheet as a base map and identify the runway end numbers.

One drawing will be an overall view drawn at a scale of 1″ = 2,000′; however, the drawing scale will be modified to ensure the full extents of the airspace surfaces are depicted within the view, particularly those associated with runways that have precision approach surfaces. The drawing will be oriented for true or magnetic north toward the top of the sheet. The overall view airport airspace drawing will depict all 14 CFR Part 77 surfaces.

A second drawing will be a close-up view drawn at a smaller scale than the overall drawing to ensure the full extent of the conical surface is depicted within the view. The drawing will be oriented for true or magnetic north toward the top of the sheet. The close-up view airport airspace drawing will depict the full extents of the 14 CFR Part 77 primary, horizontal, and conical surfaces; portions of the approach and transitional surfaces extending beyond the extent of the conical surface will be out of view due to the scale of the drawing.

At least one of the drawings will include an obstruction data table that lists the location, elevation, identification, and disposition information for objects that penetrate the horizontal, conical, and transitional surfaces. Objects penetrating the Part 77 primary surface and approach surfaces will be documented in data tables.

12.6 RUNWAY CENTERLINE PROFILE SHEETS (4 SHEETS)

The Ricondo Team will prepare, as a supplement to the airport airspace drawing sheets, a drawing depicting profile views of the existing, future, and ultimate runway centerlines. The profile views of the runways will illustrate the composite ground profiles of the extended runway centerlines; profile of the runway centerlines; five-foot line-of-sight line along the length of the runways; high, low, and other elevations of interest on the runway centerlines; and top elevation points of objects penetrating the Part 77 primary surfaces.

Each sheet will include an obstruction data table that lists the location, elevation, identification, and disposition information for objects that penetrate the primary surfaces. The sheets will be organized one runway per sheet with three views for existing, future, and ultimate profiles when applicable.

12.7 INNER PORTION OF THE APPROACH SURFACE DRAWINGS (16 SHEETS)

The Ricondo Team will prepare sixteen (16) plan and profile view drawings in accordance with the FAA SOP 2.00 checklist depicting the inner portion of the approaches to all existing, future, and ultimate runway ends. The inner portion of the approach extends horizontally to the point where a Part 77 approach surface is elevated 100 feet above the threshold elevation of the runway for which it is associated.

All inner portion of the approach surface (inner approach) drawings will be illustrated over an aerial photograph of the airport and surrounding areas in the plan view and drawing components of the existing, future, or ultimate ALP sheets. Profile views on the inner approach sheets will illustrate the composite ground profiles of the extended runway centerlines; threshold, runway end, and other elevations of interest on the runway centerlines; top elevation points of objects penetrating the Part 77 approach surfaces, AC 150/5300-13B approach surfaces, siting surfaces, and clearance surfaces; and trees within 10 feet below the aforementioned approach surfaces.

The inner approach sheets will be drawn at a scale of 1″ = 200′ in plan view and on the horizontal axis of the profile view, and to 1″ = 20′ on the vertical axis of the profile view. The drawings will be oriented for true or magnetic north generally toward the top or left of the sheet with the plan view of the runways oriented horizontally across the sheet.

All inner approach sheets will include an obstruction data table that lists the location, elevation, identification, and disposition information for objects that penetrate the approach surfaces. The full length of the runway centerline profile will be omitted from the inner approach sheets as it will be depicted on the *Runway Centerline Profile Sheets*, Task 12.6.

Additional sheets may be required as directed by the Aviation Authority to include additional runway ends if any new runways are selected as part of the preferred alternative depicted on the ultimate ALP sheet or to separate the illustrations of the existing, future, and ultimate approach surfaces.

12.8 RUNWAY DEPARTURE SURFACE DRAWINGS (16 SHEETS)

The Ricondo Team will prepare sixteen (16) plan and profile view drawings in accordance with the FAA SOP 2.00 checklist depicting the departure surfaces from all existing, future, and ultimate runway ends. The departure surface extends horizontally 10,200 feet from the end of the takeoff distance available (TODA).

All runway departure surface (departure) drawings will be illustrated over an aerial photograph of the airport and surrounding areas in the plan view and drawing components of the existing, future, or ultimate ALP sheets. Profile views on the departure surface sheets will illustrate the composite ground profiles of the extended runway centerlines; end of the TODA, runway end, and other elevations of interest on the runway centerlines; top elevation points of objects penetrating the AC 150/5300-13B departure surfaces; and trees within 10 feet below the departure surfaces.

The departure sheets will be drawn at a scale of 1″ = 1,000′ in plan view and on the horizontal axis of the profile view, and to 1″ = 100′ on the vertical axis of the profile view. The drawings will be oriented for true or magnetic north generally toward the top or left of the sheet with the plan view of the runways oriented horizontally across the sheet.

All departure sheets will include an obstruction data table that lists the location, elevation, identification, and disposition information for objects that penetrate the departure surfaces. The full length of the runway centerline profile will be omitted from the inner approach sheets as it will be depicted on the *Runway Centerline Profile Sheets*, Task 12.6.

Additional sheets may be required as directed by the Aviation Authority to include additional runway ends if any new runways are selected as part of the preferred alternative depicted on the ultimate ALP sheet or to separate the illustrations of the existing, future, and ultimate departure surfaces.

12.9 LAND USE DRAWINGS (2 SHEETS)

The Ricondo Team will prepare a land use drawing in accordance with the FAA SOP 2.00 checklist depicting existing, future, and ultimate land uses on- and in the vicinity of the airport. The land use drawing will include local government boundaries; locally defined land use categories such as agricultural, aeronautical, commercial, industrial, mixed-use, residential, etc.; the 65 "A-weighted" scale (dbA) noise contour provided by the Aviation Authority (based on previously prepared contours); identification of public facilities; and drawing components of the existing, future, or ultimate ALP sheets.

Additional sheets may be required as directed by the Aviation Authority to separate the illustrations of the existing and ultimate land uses.

12.10 AIRPORT PROPERTY MAP

The Ricondo Team will prepare an airport property map to incorporate any property exchanges since the last update. Airport Property Information will be based on the existing data found in the current ALP, additional/updated property information will be provided by the Aviation Authority.

The plan view of the airport property map will be drawn at a scale to ensure the full extents of the MCO property boundary and runway protection zones (RPZs) are depicted within the view. The drawing will be oriented for true or magnetic north toward the top of the sheet.

The airport property map does not include production of the 'Exhibit A' Property Map.

12.11 AIRPORT LAYOUT PLAN MEETINGS

The Ricondo Team anticipates participating in up to four web conference sessions using Microsoft Teams or similar software. These web conference sessions will provide an opportunity to review the basemap layering, review the draft ALP set with Aviation Authority staff, and discuss required modifications to the drawings.

In addition to the web conference sessions, three meetings at the airport are anticipated with Aviation Authority staff and management. These meetings will provide an opportunity to review the draft ALP sets prior to distributing copies to the FAA and FDOT Aviation and Spaceports Office for review and comment.

Similarly, one meeting at the FAA Orlando ADO in Orlando is anticipated. This meeting will provide an opportunity to present the draft ALP drawing set to the ADO staff and to review the proposed projects to be reflected on the future ALP. This meeting will be attended by Ricondo Team members currently located in Orlando. The Ricondo Team will also attend one meeting with the FDOT to review the ALP drawing set.

TABLE 12-1 AIRPORT LAYOUT PLAN REVIEW MEETINGS

COORDINATING ENTITY	ON-SITE VS. VIRTUAL	NUMBER OF MEETINGS	ANTICIPATED MEETING DURATION (EACH MEETING)	NUMBER OF RICONDO TEAM PARTICIPANTS
Aviation Authority / ALP Set	On-Site	3	2 hours	3
Aviation Authority / ALP Set	Virtual	4	2 hours	3
FAA / ALP Set – FAA Review	On-Site	1	2 hours	3
FDOT / ALP Set – FDOT Review	On-Site	1	2 hours	3

NOTES:
ALP Airport Layout Plan
FAA Federal Aviation Administration
FDOT Florida Department of Transportation
SOURCE: Ricondo & Associates, Inc., August 2024.

12.12 AIRPORT LAYOUT PLAN PRODUCTION AND SUBMITTAL

X

12.12.1 PRELIMINARY DRAFT AIRPORT PLANS SET SUBMITTAL

Five draft copies of the drawings will be assembled and distributed to Aviation Authority staff for review and comments. Revisions will be made as appropriate based on comments received. Of these copies, one will be distributed to the FAA Orlando ADO, and one will be distributed to the FDOT Aviation and Spaceports Office.

12.12.2 FINAL DRAFT AIRPORT PLANS SET SUBMITTAL

Once comments have been received and addressed (as appropriate), 14 copies of the final draft Airport Plans set will be submitted to the Aviation Authority for distribution to the FAA (10 copies), FDOT Aviation and Spaceports Office (3 copies), and Airport staff (1 copy). An electronic version of the drawings set will also be provided. Drawings will be provided in both AutoCAD and Adobe Acrobat (PDF) formats. As part of this submittal, the Ricondo Team will also prepare a transmittal letter to the FAA that will list the key changes that have been made to the ALP. The FAA checklist will also be completed and included in this transmittal. The drawings will also be provided in Adobe Acrobat (PDF) format.

12.12.3 FINAL AIRPORT PLANS SET

Once comments have been received and addressed (as appropriate) nine copies of the final Airport Plans set and associated FAA checklist will be submitted to the Aviation Authority for distribution to the FAA. It is assumed that the Aviation Authority will be responsible for forwarding the airport Plans set to the local FAA ADO for its review, coordination, approval, and signature. If required by the Aviation Authority, however, Ricondo will coordinate with the local FAA ADO. An electronic version of the drawings set will also be provided. The final drawings will be provided in both AutoCAD and Adobe Acrobat (PDF) formats.

12.12.4 NARRATIVE REPORT

This task will include the preparation of an ALP Narrative Report that will briefly summarize, in narrative form, the proposed development plan reflected on the sheets of the ALP set for formal review and comment by Aviation Authority staff. This narrative will include discussions of any modifications to FAA standards, including the justification of any new modification requests. In addition, a half-size version of the ALP set (11 inches by 17 inches) will be printed and included in the report. The ALP Checklist contained in SOP 2.00 will also be completed and included as an appendix to the narrative report. The *Final Master Plan Technical Report*, Task 15.2, will describe the projects depicted on the ALP with greater detail.

The Aviation Authority staff review and comment process for the ALP Narrative Report will incorporate two revision rounds: (1) preliminary draft for Aviation Authority review and comment and (2) final draft for Aviation Authority review and comment. The second round of comments/revisions will be incorporated into the final draft chapter of the MPU. The ALP Narrative Report will be provided in Adobe Acrobat (PDF) format.

AIRPORT LAYOUT PLAN: SUMMARY OF DELIVERABLES

TABLE 12-2 AIRPORT LAYOUT PLAN: SUMMARY OF DELIVERABLES

DELIVERABLES	ELECTRONIC VS. HARD COPY	NUMBER OF COPIES
Statement of Work Report (for Airports-GIS approval)	Electronic	N/A
Aerial Imagery / Remote Sensing Plan (for Airports-GIS approval)	Electronic	N/A
Survey and Quality Control Plan (for Airports-GIS approval)	Electronic	N/A
Aerial Photography Acquisition Report (for Airports-GIS approval)	Electronic	N/A
Airports-GIS Airport Airspace Analysis Data	Electronic	N/A
Planimetric and Topographic Mapping Data (Digital Terrain Model [DTM])	Electronic	N/A
Digital Ortho Imagery	Electronic	N/A
Comprehensive FAA Airports-GIS Deliverable Including Final Report	Electronic	N/A
Preliminary Draft Airport Layout Plan Drawings Set	Electronic and Hard Copies	5
Final Draft Airport Layout Plan Drawings Set	Electronic and Hard Copies	14
Final Airport Layout Plan Drawings Set	Electronic and Hard Copies	9
Preliminary Draft ALP Drawings Set Narrative Report	Electronic	N/A
Final Draft ALP Drawings Set Narrative Report	Electronic	N/A

NOTES:
GIS Geographic Information System; FAA – Federal Aviation Administration; N/A – Not Applicable; ALP – Airport Layout Plan
SOURCE: Ricondo & Associates, Inc., August 2024.

Items of Work Not Included in this Task:

- obstacle action plan preparation
- GIS data attribution beyond minimum required for Airports GIS (AGIS)

13. EXHIBIT 'A' COORDINATION

The Scope of Services for the MPU does not include an update to the MCO Exhibit 'A' set. There is a separate work effort that will be initiated outside of the MPU, but concurrent with the preparation of the MPU, for an update to the Exhibit 'A' set to include the current easements at MCO, which will require research work by a title company, paralegal, and surveyor in advance of updating the various Exhibit 'A' drawings. The scope of services under this task of the MPU comprises extracting the boundary survey, parcel data, and legal description from the Exhibit 'A' set, and incorporating such information, with any minor refinements needed, into the ALP Property Map sheet. For budgeting purposes, this task is limited to 64 total hours of mid-level planner Project Manager time.

14. STAKEHOLDER ENGAGEMENT

The purpose of the Stakeholder Engagement task is to obtain meaningful input from key stakeholders, stakeholder groups and members of the public that may be affected by the outcomes of the MPU. This task includes the efforts associated with defining and documenting the overall approach to conducting the stakeholder engagement and public outreach for the MPU, as well as the activities associated with its implementation.

TABLE 15-1 STAKEHOLDER ENGAGEMENT: DELIVERABLES SUMMARY

DELIVERABLES	ELECTRONIC VS. HARD COPY	NUMBER OF COPIES
Preliminary Draft Stakeholder Engagement and Community Outreach Plan	Electronic	N/A
Final Draft Stakeholder Engagement and Community Outreach Plan	Electronic	N/A
Final Stakeholder Engagement and Community Outreach Plan	Electronic	N/A

NOTE:
N/A Not Applicable
SOURCE: Ricondo & Associates, Inc., August 2024.

TABLE 15-2 STAKEHOLDER ENGAGEMENT: MEETINGS SUMMARY

COORDINATING ENTITY/SURVEY	ON-SITE VS. VIRTUAL	NUMBER OF MEETINGS/ WORKSHOPS	ANTICIPATED MEETING DURATION (EACH MEETING)	NUMBER OF RICONDO TEAM PARTICIPANTS
Public Workshops	On-Site	3	3 hours	10
Technical Advisory Committee	On-Site	6	2 hours	8
Project Advisory Committee	On-Site	6	2 hours	8
Advisory Committee's Logistics Review Meeting	Virtual	8	1 hour	3
Advisory Committee's Debrief Meeting	Virtual	8	1 hour	3
Aviation Authority Board Briefings	On-Site	4	2 hours	3
Supplemental Stakeholder Briefings	On-Site	6	2 hours	3

NOTES:
TAC Technical Advisory Committee
BCC/PAC Business Community/Public Agency Advisory Committee
These committees are described in Section 15.3.1.
SOURCE: Ricondo & Associates, Inc., August 2024.

14.1 COMMUNITY OUTREACH AND STAKEHOLDER ENGAGEMENT PLAN

In this task, the Ricondo Team will collaborate with the Aviation Authority, including the Senior Vice President of Public Affairs and supporting staff, to develop a plan that will guide the overall stakeholder engagement and public outreach initiatives for the MCO MPU. This plan will define an approach to implementing these initiatives throughout the MPU process. The following activities are anticipated as part of this task:

- Meet and collaborate with the Aviation Authority to identify a list of key stakeholders to engage in the planning process. Anticipated stakeholder groups may include:

- Internal Stakeholders – Aviation Authority Departments/staff, Ricondo Team, Regulatory Agencies, Planning Agencies, airline representatives, Airport tenants, and other individuals or groups deemed appropriate by the Aviation Authority.
- External Stakeholders – Central Florida counties and municipalities, major regionally located organizations, public officials, business leaders (economic development groups, chambers of commerce, others), and other individuals or groups deemed appropriate by the Aviation Authority.
- General Public – residential/homeowner associations and business communities at-large
- Formulate up to two advisory committees and other stakeholder groups that will be engaged throughout the MPU process and determine their level of involvement.
- Determine the most effective communication platform(s) for engaging the various stakeholder groups and interested parties to solicit comments and input, including workshops, charrettes, public meetings, public open houses, individual meetings, electronic surveys, websites, social media, and other sources.
- Develop a proposed timeline, schedule, and frequency for engaging each stakeholder group.
- Develop the approach, roles, and responsibilities for creating webpage and related social media materials.
- Outline the Aviation Authority's approach and initiatives for stakeholder engagement and public outreach.

A draft version of this Plan will be submitted to Aviation Authority staff for review and comment. Upon receiving comments from the Aviation Authority, the Plan will be finalized and distributed to the Aviation Authority for its project files.

14.2 TECHNICAL STAKEHOLDER ENGAGEMENT

Technical stakeholder engagement associated with the MPU will include a combination of advisory committee meetings and individual briefings with select stakeholders. The services to be provided by the Ricondo Team during this program are described in the following subtasks.

14.2.1 PROJECT ADVISORY COMMITTEES

As a primary means for securing stakeholder engagement throughout the MPU, the Ricondo Team recommends the formulation and engagement of two advisory committees during the master planning process, a Technical Advisory Committee (TAC) and a Business Community/Public Agency Committee (BCC/PAC):

- The TAC is typically responsible for providing input and insight on technical issues. The TAC is envisioned to consist of key representatives from the FAA, Transportation Security Administration (TSA), Customs and Border Protection (CBP), tenants/operators, and local planning and engineering staff. TAC members typically have a high level of technical competency associated with some aspect of aviation or airport operations and are major stakeholders in the airport's operation.
- The BCC/PAC serves as a sounding board and information exchange group for stakeholders, reviews the planning team's plans and recommendations, interacts with the planning team members during the review, makes consensus recommendations to the planning team, and finally gives its recommendations on the finished plan to the airport sponsor. The PAC typically provides insight and guidance on community and business interests and may include policy and administrative representatives from local and county government, regional organizations, and key community leaders. However, the TAC and BCC/PAC are advisory and have no decision-making power of their own.

The Ricondo Team will schedule and coordinate logistics for each of the advisory committee meetings. Each advisory committee will be briefed separately with up to six briefings each for 12 total meetings. Each meeting would have a duration of up to 2 hours and would be attended by up to eight members of the Ricondo Team:

- Ricondo's Officer-in-Charge/PM (1)
- Ricondo's Deputy PM (1)
- Technical Specialists / Subject Matter Experts (3)
- Welcome/Reception Team (2)
- Transcriber / Note Taker (1)

The Ricondo Team will coordinate the logistics associated with each advisory committee meeting. This will include preparing sign-in sheets, name badges, and wayfinding/signage. An email invitation will be distributed to each committee member at least two weeks prior to each meeting. A transcriber will document the proceedings of the meetings, and summary meeting notes will be prepared.

Ricondo will also conduct a logistics review meeting (via conference call) with the Aviation Authority's Planning Department and the External Affairs team, and other Aviation Authority staff that wishes to participate prior to each set of committee meetings, as well as an in-person debrief meeting following the close of the comment period. Prior to the debrief meeting, the Ricondo Team will create a summary of meeting participants and the feedback received during the meeting.

This scope of services assumes that the Aviation Authority will provide a location for BCC/PAC and TAC meetings and any refreshments deemed warranted for attendees.

14.2.2 AVIATION AUTHORITY BOARD BRIEFINGS

At key milestones, the Aviation Authority will need to brief the Aviation Authority's Board on the progress of the MCO MPU and obtain consensus on key decisions. It is anticipated that these briefings will be made by the CEO as part of the CEO Report generally included in each month's Board meeting. The Ricondo Team will be available to support the CEO, as requested, with these briefings. The presentation slides and other materials (which may include development of images, infographics, summary brochures, or discussion outlines) used by the CEO for these briefings to the Board are assumed to be prepared by the Ricondo Team, with close oversight by the External Affairs team. For budgeting purposes, it is envisioned that up to four briefings will be required (individual briefings of each Board Member are not anticipated and are excluded). For each Board briefing, up to three staff from the Ricondo Team would attend, including Ricondo's Officer-in-Charge/PM, Deputy PM, and one subject matter expert.

Up to two additional virtual meetings will be conducted by the Ricondo Team to review the presentation materials with the Aviation Authority's Planning Department and the External Affairs team in advance of the Aviation Authority Board meetings.

14.2.3 SUPPLEMENTAL STAKEHOLDER BRIEFINGS

This task comprises a budget allowance for conducting up to six (6) additional stakeholder briefings not included in the previous subtasks. These can take the form of presentations, briefings, or traditional meetings. Examples of key organizations or stakeholders these ancillary meetings may include City of Orlando or Orange County government meetings, economic development organizations, special interest groups, and other key stakeholders. While key stakeholders may be represented in the BCC/PAC or TAC, additional meetings or presentations for some of these groups could be expected at various times.

Depending on the nature of these meetings, the Ricondo Team may be responsible for preparing meeting materials, printing and reproducing handouts (if any), and preparing and distributing meeting notes. Draft meeting materials would be submitted to the Aviation Authority for review and comment prior to each meeting. The level of attendance by the Ricondo Team, and the role of its staff, will be determined by the Aviation Authority for each meeting. For budgeting purposes, however, this proposal assumes that up to three staff from the Ricondo Team would attend, including Ricondo's Officer-in-Charge/PM, Deputy PM, and one subject matter expert.

14.3 PUBLIC MEETINGS AND COMMUNICATION SUPPORT

For budgeting purposes, up to three public meetings (open houses) will be conducted during the master planning process. The meetings are envisioned to be conducted at the following milestones, but these could be adjusted at the Aviation Authority's discretion:

- upon FAA approval of the activity forecasts
- commencement of alternatives analysis
- prior to completion of the alternatives analysis

Each workshop would have a duration of 3 hours and have an option for participating virtually or in-person, with each being attended in-person by up to ten (10) members of the Ricondo Team:

Ricondo's Officer-in-Charge/PM (1)
Ricondo's Deputy PM (1)
Technical Specialists / Subject Matter Experts (4)
Welcome/Reception Team (4)

The Ricondo Team will coordinate the logistics associated with each public workshop. This will include preparing sign-in sheets, comment cards, name badges, and wayfinding/signage. Newspaper advertisements, flyers, and other advertisements will be prepared by the Ricondo Team in close coordination with the External Affairs team for dissemination by the Aviation Authority. It is anticipated that multiple iterations and revisions may be needed to address requested changed by the Aviation Authority. Presentation materials, such as boards, easels, and handouts, will also be produced/supplied by the Ricondo Team. Direct mailing of invitations to the public workshops will not be conducted by the Ricondo Team.

The Ricondo Team will advise and work with Aviation Authority staff to define the form of the public meetings/open houses that provides for the best interaction with the general public. The Ricondo Team will develop and provide comment forms that the public can use to submit specific written comments or suggestions to the planning team, as well as summarize the comments received via the forms after each workshop and provide the summary to Aviation Authority. Since Quest Corporation has specific expertise in the management of public involvement/outreach efforts, the Ricondo Team will rely on Quest Corporation personnel for input, ideas, and guidance on how to maximize the benefit of the public workshop/meeting activities.

The Ricondo Team will also conduct a logistics review meeting (via conference call) with the Aviation Authority (including the External Affairs team) prior to each set of stakeholder briefings and public meetings, as well as a debrief meeting (via conference call) with the Aviation Authority following the close of the comment period. Prior to the debrief meeting, the Ricondo Team will document comments received from the public and create a summary of key issues that may need to be considered during subsequent tasks associated with the MPU.

For budgeting purposes, it has been assumed that the Aviation Authority will secure the meeting location, mail meeting notices, arrange for and pay for any public advertisements for the meeting.

14.4 PUBLICATIONS AND WEBSITE/WEBPAGE CONTENT

To further promote the coordination and communication process, it is anticipated that a section of the existing Aviation Authority website will be dedicated to the MCO MPU. The Ricondo Team will provide materials to be loaded on the webpage by the current website administrator, or the Aviation Authority. The Ricondo Team will not be responsible for the maintenance or development of the website. Pending approval by the Aviation Authority, presentations and milestone deliverables will be submitted in a usable format to be uploaded to the MPU website.

Quest Corporation will assist Ricondo in defining the graphics and written material for the website, as well as its periodic updating and coordinating with Aviation Authority's External Affairs and IT staff related to format of the page layout. Quest Corporation will provide guidance relative to the types of graphics to be incorporated onto the website and the development of a message to be consistently conveyed, and Quest Corporation will ensure technical materials are addressed to facilitate understanding by members of the public.

Materials posted to the website will summarize the content of often highly technical analyses, which will need to be as understandable by the general public. Coordinating with the Aviation Authority and Ricondo, Quest Corporation will maintain current materials and project updates addressing project schedule, work elements, public meetings dates, times and locations, steps in the planning process, and results of various studies and analyses that will be included on the project website. Quest Corporation will also guide the updating of materials and information, with the Aviation Authority's advance approval, over the duration of the MPU process.

This scope of services assumes that the update to the Aviation Authority's website will be completed quarterly for a total of 7 MPU related updates.

Items of Work Not Included in Task

Additional meetings or project management and coordination services beyond those specifically outlined in this task's scope of work are not included.

15. FINAL MASTER PLAN UPDATE DOCUMENTATION

The final documents issued at the conclusion of the master planning process will be thorough and articulate in the enunciation of master planning goals, key assumptions, technical and analytical methodologies, findings, considerations and alternatives, and ultimate recommendations. In addition, these documents will be structured and formatted so they are easy to follow and understand, as well as conducive to serving as day-to-day management tools. Executive-level, graphically designed versions will also be part of the final deliverables.

The Ricondo Team will prepare a Technical Report that summarizes the results of the master planning process. In addition, an Executive Summary PowerPoint presentation, and an Executive Summary brochure (assumed to be up to 50 pages, 8.5" x 11", in length) will be produced that highlights the MPU effort, and it will also clearly summarize the improvements recommended for MCO. Preliminary drafts will be provided to the Aviation Authority for internal review and comment. After the Aviation Authority reviews the draft document and provides final comments, the Ricondo Team will prepare the final draft MPU Report and ALP set for FAA review and comment. The Ricondo Team will then respond to comments and incorporate those comments into the final MPU Report that includes both the Technical Report and Executive Summary. The Executive Summary will be produced after the final draft MPU Report and ALP set have been reviewed by the Aviation Authority, FAA, FDOT, and other regulatory or planning agencies that are part of the review and approval process for the MCO MPU.

TABLE 15-1 FINAL MASTER PLAN DELIVERABLES

DELIVERABLES	ELECTRONIC VS. HARD COPY	NUMBER OF COPIES
Draft MPU Technical Report	Electronic	N/A
Final MPU Technical Report	Electronic	N/A
Final Draft Executive Summary for Aviation Authority Review/Comment	Electronic	N/A
Final Executive Summary	Electronic and Hard Copies	30
Executive Summary PowerPoint Presentation	Electronic	N/A
MPU-2023 Strategic Plan Alignment Matrix	Electronic	N/A

NOTE:
N/A Not Applicable
SOURCE: Ricondo & Associates, Inc., August 2024.

TABLE 15-2 MASTER PLAN DOCUMENTATION MEETINGS

COORDINATING ENTITY	ON-SITE VS. VIRTUAL	NUMBER OF MEETINGS	ANTICIPATED MEETING DURATION (EACH MEETING)	NUMBER OF RICONDO TEAM PARTICIPANTS
N/A	N/A	N/A	N/A	N/A

NOTE:
N/A Not Applicable
SOURCE: Ricondo & Associates, Inc., August 2024.

15.1 DRAFT TECHNICAL REPORT

To ensure proper coordination of the planning effort and assure agreement among the Ricondo Team, Aviation Authority, FDOT, and FAA, a draft MPU Technical Report will be submitted for formal review. The draft report will contain previously prepared working papers (revised based on comments provided on original drafts) and ALP drawings. Applicable exhibits, attachments, and appendices will be indexed by chapter. An electronic file version in Adobe Acrobat (PDF) format of the draft report will be provided. The Aviation Authority will ultimately be responsible for the dissemination of copies of the draft MPU Technical Report to appropriate parties.

15.2 FINAL TECHNICAL REPORT

The final MPU Technical Report, which will consolidate the technical reports and working papers for each of the key tasks included in this scope of services, will be prepared after all agencies and participants have made their comments on the draft MPU Technical Report and after the Aviation Authority has directed the Ricondo Team to incorporate these comments into a final report. The Ricondo Team will prepare an electronic file version in Adobe Acrobat (PDF) format. The Aviation Authority will ultimately be responsible for the dissemination of copies of the final MPU Technical Report to appropriate parties.

15.3 EXECUTIVE SUMMARY BROCHURE

After completion of the final draft of the MPU Technical Report, the Ricondo Team will prepare an Executive Summary brochure. The Executive Summary will highlight the major results from the MPU and clearly summarize the improvements proposed for MCO. The Executive Summary shall include up to 50 pages (8.5 inches by 11.0 inches using 100-pound paper) with color exhibits. A total of 50 copies and an electronic file version in Adobe Acrobat (PDF) format of the Executive Summary will be provided.

15.4 EXECUTIVE SUMMARY PRESENTATION

In consultation with Aviation Authority staff, the Ricondo Team will develop a concise (not to exceed 25 slides) PowerPoint presentation summarizing the MPU process and the recommended plan and capital projects.

15.5 MPU-2023 STRATEGIC PLAN ALIGNMENT MATRIX

A matrix will be developed that summarizes the various MPU recommendations and capital projects relative to their individual contributions relative to one or more of the 64 strategic objectives defined in the 2023 Strategic Plan. The matrix will identify each MPU recommendation or proposed capital project and identify specifically which strategic objective(s) is supported and further advanced by implementing the MPU recommendation/capital project. It is envisioned that this matrix would be initially prepared in Excel, but upon being finalized, it would be converted into an image/graphic that can be used for presentation purposes with internal and external stakeholders.

Items of Work Not Included in this Task

Additional meetings or project management and coordination services beyond those specifically outlined in this task's scope of work are not included.

16. MASTER PLAN VIDEO

As the preferred development emerges, an informative video detailing the plan/vision for the Airport. The video would be available for the Aviation Authority to put on the website and on other display media that the Aviation Authority's PM deems necessary for public information.

16.1 CONTENT CREATION, INTEGRATION AND REVIEW

This task will include the preparation of the briefing materials, comprising a PowerPoint presentation and audio-visual video assembled using the information developed during prior master planning tasks, including the three-dimensional models to be prepared as part of the previous task.

16.2 PREFERRED ALTERNATIVE OVERVIEW VIDEO PRODUCTION AND EDITING

The video will have a duration of 2-3 minutes, and will include an overview of the Master Plan, highlight pertinent features of the preferred Alternative, and illustrate its incremental development. The expected production schedule for this video deliverable is a duration of three (3) months. The Ricondo Team and the Aviation Authority will receive progress updates throughout the process, for review and comments, so that the final deliverable encompasses all expected/required content.

In consultation with Aviation Authority staff, a script and storyboard will be produced in advance of producing the video. Up to four (4) iterations of the video will be prepared during the editing. These iterations refer to minor edits to the completed video deliverable, in accordance to any adjustments needed for Consultant and/or Aviation Authority presentations with Board, stakeholders, airlines, and/or public outreach. This task includes three (3) days of onsite observations and existing conditions video recordings to be used to illustrate planned changes in the passenger experience – these recordings would be included in the visual presentation to compare and contract existing conditions from future improvements.

BUDGET

As noted in the table below, Ricondo proposes an estimated not to exceed fee of **$4,799,486** for the above-described Scope of Work, which includes the Ricondo Teams labor and the actual cost of out-of-pocket expenses, such as airfare, hotels, meals, and car rentals, all in accordance with the Aviation Authority's expense reimbursement policies. As noted in the scope, the Mobility Master Plan scope and budget are not included in this proposal at this time.

BUDGET ESTIMATE SUMMARY – LABOR AND REIMBURSABLE EXPENSES

FIRM/POSITION		COST
Ricondo & Associates, Inc.	$	3,724,227.00
Carolyn Binder, CPA, LLC	$	38,610.00
Environmental Science Associates	$	60,104.00
GSS Creative	$	48,630.00
Illustrate My Design	$	141,500.00
KMI International	$	248,200.00
Martinez Geospatial	$	277,525.00
Quest Corporation of America, Inc.	$	220,394.00
Wonderstruct	$	40,296.00
TOTAL COSTS	**$**	**4,799,786.00**

TRUTH IN NEGOTIATION CERTIFICATION

The Consultant hereby certifies, covenants, and warrants that wage rates and other factual unit costs supporting the compensation for this project's agreement are accurate, complete, and current at the time of contracting.

The Consultant further agrees that the original agreement price and any additions thereto shall be adjusted to exclude any significant sums by which the Aviation Authority determines the agreement price was increased due to inaccurate, incomplete, or noncurrent wage rates and other factual unit costs. All such agreement adjustments shall be made within (1) year following the end of the contract. For purposes of this certificate, the end of the agreement shall be deemed to be the date of final billing or acceptance of the work by the Aviation Authority, whichever is later.

Consultant: Ricondo & Associates, Inc.

By: 

Print Name: Pete Ricondo, P.E., Senior Vice President

Date: 7/30/2024

EXHIBIT A - CONSULTANT'S COMPENSATION PROPOSAL
TABLE C-1
SUMMARY OF TOTAL CONTRACT VALUE
MCO MASTER PLAN UPDATE

Phase of Project:		TOTAL CONTRACT
1.0 Lump Sum Fee:	$0.00	$ -
2.0 Not to Exceed Professional Fees:	$4,747,271.00	$ **4,747,271.00**
3.0 Not to Exceed Reimbursable Expenses:	$52,215.00	$ **52,215.00**
4.0 TOTAL CONTRACT VALUE:	**$4,799,486.00**	$ **4,799,486.00**
Total Lump Sum Labor Hours:	0	**0**
Total Not to Exceed Professional Labor Hours:	27,963	**27,963**
TOTAL LABOR HOURS:	**27,963**	**27,963**
Average Hourly Rate:		$ 171.64

EXHIBIT A - CONSULTANT'S COMPENSATION PROPOSAL
TABLE C-2
SUMMARY OF NOT TO EXCEED FEES

TASKS	TASK 1: PROJECT INITIATION AND ADMINISTRATION		TASK 2: INVENTORY OF EXISTING CONDITIONS		TASK 3: AVIATION ACTIVITY FORECAST		TASK 4: DEMAND CAPACITY AND FACILITY REQUIREMENTS		TASK 5: MOBILITY MASTER PLAN		TASK 6: ALTERNATIVES DEFINITION AND EVALUATION		TASK 7: REFINEMENT OF THE PREFERRED DEVELOPMENT ALTERNATIVE		TASK 8: IMPLEMENTATION PLAN FOR FUTURE IMPROVEMENTS AND NEW CAPITAL PROJECTS		TASK 9: ENVIRONMENTAL OVERVIEW		TASK 10: SUSTAINABILITY STRATEGY		TASK 11: PHOTOGRAMMETRY AND FAA AIRPORTS-GIS		TASK 12: AIRPORT LAYOUT PLAN		TASK 13: EXHIBIT A' COORDINATION		TASK 14: STAKEHOLDER ENGAGEMENT		TASK 15: FINAL DOCUMENTATION		TASK 16: MASTER PLAN VIDEO		EXPENSES (Table C-4)		TOTAL		
	labor hours	Total Fee	labor hours	Total Fee	labor hours	Total Fee	labor hours	Total Fee	labor hours	Total Fee	labor hours	Total Fee	labor hours	Total Fee	labor hours	Total Fee	labor hours	Total Fee	labor hours	Total Fee	labor hours	Total Fee	labor hours	Total Fee	labor hours	Total Fee	labor hours	Total Fee	labor hours	Total Fee	labor hours	Total Fee		Direct Costs	labor hours	Cost	Avg. Rate
Ricondo & Associates, Inc.,																																						
Not to Exceed Fee Subtotal	820	$ 195,476.00	1,982	$ 371,154.00	1,324	$ 287,399.00	2,726	$ 527,114.00	-	$ -	5,166	$ 955,674.00	1,066	$ 209,744.00	874	$ 197,038.00	40	$ 10,790.00	182	$ 35,308.00	12	$ 2,536.00	2,939	$ 378,768.00	64	$ 11,384.00	1,125	$ 273,330.00	1,110	$ 218,034.00	174	$ 33,218.00		$ 17,260.00	19,604	$ 3,724,227.00	$190
Carolyn Binder, CPA, LLC (DBE)																																						
Not to Exceed Fee Subtotal	330	$ 38,610.00	-	$ -	-	$ -	-	$ -	-	$ -	-	$ -	-	$ -	-	$ -	-	$ -	-	$ -	-	$ -	-	$ -	-	$ -	-	$ -	-	$ -	-	$ -			330	$ 38,610.00	$117
Environmental Science Associates																																						
Not to Exceed Fee Subtotal	-	$ -	66	$ 12,718.00	-	$ -	-	$ -	-	$ -	-	$ -	-	$ -	-	$ -	226	$ 47,386.00	-	$ -	-	$ -	-	$ -	-	$ -	-	$ -	-	$ -	-	$ -			292	$ 60,104.00	$206
Graphic Support Services (DBE)																																						
Not to Exceed Fee Subtotal	-	$ -	-	$ -	-	$ -	-	$ -	-	$ -	-	$ -	-	$ -	-	$ -	-	$ -	-	$ -	-	$ -	-	$ -	-	$ -	80	$ 9,920.00	210	$ 26,040.00	-	$ -		$ 12,670.00	290	$ 48,630.00	$168
Illustrate My Design (DBE)																																						
Not to Exceed Fee Subtotal	-	$ -	-	$ -	-	$ -	-	$ -	-	$ -	-	$ -	356	$ 58,420.00	-	$ -	-	$ -	-	$ -	-	$ -	-	$ -	-	$ -	-	$ -	-	$ -	504	$ 83,080.00			860	$ 141,500.00	$165
KMI International (LDB)																																						
Not to Exceed Fee Subtotal	-	$ -	-	$ -	-	$ -	-	$ -	-	$ -	320	$ 58,400.00	-	$ -	1,040	$ 189,800.00	-	$ -	-	$ -	-	$ -	-	$ -	-	$ -	-	$ -	-	$ -	-	$ -			1,360	$ 248,200.00	$144
Martinez Geospatial (DBE)																																						
Not to Exceed Fee Subtotal	-	$ -	-	$ -	-	$ -	-	$ -	-	$ -	-	$ -	-	$ -	-	$ -	-	$ -	-	$ -	2,973	$ 255,240.00	-	$ -	-	$ -	-	$ -	-	$ -	-	$ -		$ 22,285.00	2,973	$ 277,525.00	$93
Quest Corporation of America, Inc, (DBE)																																						
Not to Exceed Fee Subtotal	-	$ -	1,016	$ 114,230.00	-	$ -	-	$ -	-	$ -	360	$ 44,640.00	-	$ -	-	$ -	-	$ -	-	$ -	-	$ -	-	$ -	-	$ -	517	$ 61,524.00	-	$ -	-	$ -			1,893	$ 220,394.00	$116
Wondersruct (DBE)																																						
Not to Exceed Fee Subtotal	-	$ -	18	$ 1,998.00	18	$ 1,998.00	18	$ 1,998.00	-	$ -	90	$ 9,990.00	18	$ 1,998.00	18	$ 1,998.00	18	$ 1,998.00	18	$ 1,998.00	-	$ -	-	$ -	-	$ -	-	$ -	145	$ 16,320.00	-	$ -			361	$ 40,296.00	$112
Total Not to Exceed Amount:	**1,150**	**$ 234,086.00**	**3,082**	**$ 500,100.00**	**1,342**	**$ 289,397.00**	**2,744**	**$ 529,112.00**	**-**	**$ -**	**5,936**	**$1,068,704.00**	**1,440**	**$ 270,162.00**	**1,932**	**$ 388,836.00**	**284**	**$ 60,174.00**	**200**	**$ 37,306.00**	**2,985**	**$ 257,776.00**	**2,939**	**$ 378,768.00**	**64**	**$ 11,384.00**	**1,722**	**$ 344,774.00**	**1,465**	**$ 260,394.00**	**678**	**$ 116,298.00**	**-**	**$ 52,215.00**	**27,963**	**$ 4,799,486.00**	$172

EXHIBIT A - CONSULTANT'S COMPENSATION PROPOSAL
TABLE C-5
BREAKDOWN OF NOT TO EXCEED PROFESSIONAL FEES
Ricondo Associates, Inc.

Ricondo & Associates, Inc.	Senior Officer with Travel Premium		Senior Officer		Officer with Travel Premium		Officer		Senior Director with Travel Premium		Senior Director		Director with Travel Premium		Director		Manager with Travel Premium		Manager		Senior Consultant		Technical Editor		Senior Graphic Designer		Graphic Designer		Consultant		Technical Specialist		TOTAL		
Rate ($/Hour):	$385		$350		$375		$340		$330		$295		$274		$239		$215		$180		$139		$138		$134		$97		$93		$66		labor		Avg. Hourly
	hours	Cost	hours	Cost	hours	Cost	hours	Cost	hours	Cost	hours	Cost	hours	Cost	hours	Cost	hours	Cost	hours	Cost	hours	Cost	hours	Cost	hours	Cost	hours	Cost	hours	Cost	hours	Cost	Rate
TASKS																																	
TASK 1: PROJECT INITIATION AND ADMINISTRATION	**44**	**$16,940**	**80**	**$28,000**	**38**	**$14,250**	**76**	**$25,840**	**4**	**$1,320**	**30**	**$8,850**	**12**	**$3,288**	**72**	**$17,208**	**32**	**$6,880**	**336**	**$60,480**	**72**	**$10,008**	**4**	**$552**	**0**	**$0**	**0**	**$0**	**20**	**$1,860**	**0**	**$0**	**820**	**$195,476**	**$238**
Task 1.1 - Initiation Meeting	6	$2,310	0	$0	0	$0	0	$0	0	$0	0	$0	8	$2,192	12	$2,868	12	$2,580	12	$2,160	16	$2,224	4	$552	0	$0	0	$0	0	$0	0	$0	70	$14,886	$213
Task 1.2 - Project Coordination Meetings	38	$14,630	68	$23,800	38	$14,250	68	$23,120	4	$1,320	4	$1,180	4	$1,096	4	$956	4	$860	136	$24,480	24	$3,336	0	$0	0	$0	0	$0	20	$1,860	0	$0	412	$110,888	$269
Task 1.3 - Project Administration	0	$0	12	$4,200	0	$0	8	$2,720	0	$0	24	$7,080	0	$0	36	$8,604	0	$0	140	$25,200	16	$2,224	0	$0	0	$0	0	$0	0	$0	0	$0	236	$50,028	$212
Task 1.4 - Ricondo / Greater Orlando Aviation Authority Secured Data Exchange Platform	0	$0	0	$0	0	$0	0	$0	0	$0	2	$590	0	$0	20	$4,780	16	$3,440	48	$8,640	16	$2,224	0	$0	0	$0	0	$0	0	$0	0	$0	102	$19,674	$193
TASK 2: INVENTORY OF EXISTING CONDITIONS	**8**	**$3,080**	**50**	**$17,500**	**12**	**$4,500**	**38**	**$12,920**	**32**	**$10,560**	**44**	**$12,980**	**144**	**$39,456**	**286**	**$68,354**	**152**	**$32,680**	**388**	**$69,840**	**456**	**$63,384**	**28**	**$3,864**	**2**	**$268**	**4**	**$388**	**336**	**$31,248**	**2**	**$132**	**1,962**	**$371,154**	**$187**
Task 2.1 - Tenant Survey	0	$0	2	$700	0	$0	0	$0	0	$0	0	$0	8	$2,192	12	$2,868	24	$5,160	24	$4,320	24	$3,336	4	$552	0	$0	0	$0	24	$2,232	0	$0	122	$21,360	$175
Task 2.2 - Passenger Intercept Survey	0	$0	2	$700	0	$0	0	$0	0	$0	0	$0	16	$4,384	16	$3,824	40	$8,600	32	$5,760	24	$3,336	4	$552	0	$0	0	$0	12	$1,116	0	$0	146	$28,272	$194
Task 2.3 - Existing Document and Data Collection	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	12	$2,868	0	$0	24	$4,320	0	$0	0	$0	0	$0	0	$0	24	$2,232	0	$0	60	$9,420	$157
Task 2.4 - Inventory of Airfield and Airspace Conditions	0	$0	6	$2,100	0	$0	0	$0	24	$7,920	24	$7,080	24	$6,576	28	$6,692	24	$5,160	20	$3,600	48	$6,672	0	$0	0	$0	0	$0	28	$2,604	0	$0	226	$48,404	$214
Task 2.5 - Inventory of Airline Terminals and Gates	0	$0	4	$1,400	4	$1,500	2	$680	8	$2,640	8	$2,360	24	$6,576	24	$5,736	24	$5,160	24	$4,320	48	$6,672	0	$0	0	$0	0	$0	32	$2,976	0	$0	202	$40,020	$198
Task 2.6 - Inventory of Landside Facilities	0	$0	4	$1,400	0	$0	4	$1,360	0	$0	0	$0	24	$6,576	56	$13,384	16	$3,440	32	$5,760	52	$7,228	0	$0	0	$0	0	$0	40	$3,720	0	$0	228	$42,868	$188
Task 2.7 - Inventory of Cargo Facilities	0	$0	2	$700	0	$0	0	$0	0	$0	0	$0	8	$2,192	8	$1,912	0	$0	24	$4,320	28	$3,892	0	$0	0	$0	0	$0	24	$2,232	0	$0	94	$15,248	$162
Task 2.8 - Inventory of General Aviation Facilities	0	$0	2	$700	0	$0	0	$0	0	$0	0	$0	4	$1,096	18	$4,302	0	$0	32	$5,760	48	$6,672	0	$0	0	$0	0	$0	24	$2,232	0	$0	128	$20,762	$162
Task 2.9 - Inventory of Support Facilities	0	$0	12	$4,200	0	$0	0	$0	0	$0	0	$0	0	$0	32	$7,648	0	$0	84	$15,120	80	$11,120	0	$0	0	$0	0	$0	56	$5,208	0	$0	264	$43,296	$164
Task 2.10 - Inventory of Surrounding Land Uses	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	4	$956	0	$0	8	$1,440	0	$0	0	$0	0	$0	0	$0	24	$2,232	0	$0	36	$4,628	$129
Task 2.11 - Inventory of Environmental Conditions	0	$0	0	$0	4	$1,500	4	$1,360	0	$0	0	$0	0	$0	4	$956	0	$0	8	$1,440	4	$556	0	$0	0	$0	0	$0	24	$2,232	0	$0	48	$8,044	$168
Task 2.12 - Inventory Meetings	8	$3,080	0	$0	4	$1,500	4	$1,360	0	$0	0	$0	36	$9,864	36	$8,604	24	$5,160	36	$6,480	60	$8,340	0	$0	0	$0	0	$0	0	$0	0	$0	208	$44,388	$213
Task 2.13 - Draft Inventory Working Paper	0	$0	16	$5,600	0	$0	24	$8,160	0	$0	12	$3,540	0	$0	36	$8,604	0	$0	40	$7,200	40	$5,560	20	$2,760	2	$268	4	$388	24	$2,232	2	$132	220	$44,444	$202
TASK 3: AVIATION ACTIVITY FORECAST	**27**	**$10,395**	**23**	**$8,050**	**55**	**$20,625**	**86**	**$29,240**	**51**	**$16,830**	**192**	**$56,640**	**0**	**$0**	**16**	**$3,824**	**51**	**$10,965**	**467**	**$84,060**	**250**	**$34,750**	**28**	**$3,864**	**22**	**$2,948**	**0**	**$0**	**56**	**$5,208**	**0**	**$0**	**1,324**	**$287,399**	**$217**
Task 3.1 - Forecast Data Collection	0	$0	0	$0	0	$0	2	$680	0	$0	0	$0	0	$0	0	$0	0	$0	12	$2,160	24	$3,336	0	$0	0	$0	0	$0	16	$1,488	0	$0	54	$7,964	$142
Task 3.2 - Market Assessment and Review of Factors Affecting Aviation Demand	0	$0	8	$2,800	0	$0	54	$18,360	0	$0	86	$25,370	0	$0	8	$1,912	0	$0	142	$25,560	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	298	$74,002	$248
Task 3.3 - Baseline Activity Forecasts	0	$0	6	$2,100	4	$1,500	8	$2,720	0	$0	66	$19,470	0	$0	0	$0	0	$0	118	$21,240	78	$10,842	0	$0	4	$536	0	$0	0	$0	0	$0	284	$58,408	$206
Task 3.4 - Peak Month and Peak Month Average Day Derivative Forecasts	0	$0	1	$350	0	$0	2	$680	0	$0	4	$1,180	0	$0	4	$956	0	$0	8	$1,440	16	$2,224	0	$0	0	$0	0	$0	0	$0	0	$0	35	$6,830	$195
Task 3.5 - Design Day Flight Schedules	0	$0	0	$0	0	$0	2	$680	0	$0	0	$0	0	$0	0	$0	0	$0	116	$20,880	100	$13,900	0	$0	0	$0	0	$0	40	$3,720	0	$0	258	$39,180	$152
Task 3.6 - Alternative Demand Scenario	0	$0	2	$700	0	$0	4	$1,360	0	$0	12	$3,540	0	$0	4	$956	0	$0	15	$2,700	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	37	$9,256	$250
Task 3.7 - Forecast Meetings	27	$10,395	0	$0	51	$19,125	0	$0	51	$16,830	0	$0	0	$0	0	$0	51	$10,965	0	$0	0	$0	0	$0	0	$0	6	$804	0	$0	0	$0	186	$58,119	$312
Task 3.8 - Draft Forecast Working Paper	0	$0	6	$2,100	0	$0	14	$4,760	0	$0	24	$7,080	0	$0	0	$0	0	$0	56	$10,080	32	$4,448	28	$3,864	12	$1,608	0	$0	0	$0	0	$0	172	$33,940	$197
TASK 4: DEMAND CAPACITY AND FACILITY REQUIREMENTS	**32**	**$12,320**	**112**	**$39,200**	**56**	**$21,000**	**68**	**$23,120**	**40**	**$13,200**	**68**	**$20,060**	**112**	**$30,688**	**392**	**$93,688**	**124**	**$26,660**	**612**	**$110,160**	**714**	**$99,246**	**20**	**$2,760**	**2**	**$268**	**4**	**$388**	**368**	**$34,224**	**2**	**$132**	**2,726**	**$527,114**	**$193**
Task 4.1 - Airfield and Airspace Requirements	0	$0	16	$5,600	24	$9,000	36	$12,240	0	$0	0	$0	32	$8,768	80	$19,120	40	$8,600	136	$24,480	240	$33,360	0	$0	0	$0	0	$0	40	$3,720	0	$0	644	$124,888	$194
Task 4.2 - Terminal and Airside Requirements	0	$0	16	$5,600	8	$3,000	8	$2,720	0	$0	0	$0	24	$6,576	48	$11,472	24	$5,160	120	$21,600	140	$19,460	0	$0	0	$0	0	$0	160	$14,880	0	$0	548	$90,468	$165
Task 4.3 - Cargo Requirements	0	$0	8	$2,800	0	$0	0	$0	0	$0	16	$4,720	0	$0	16	$3,824	12	$2,580	16	$2,880	40	$5,560	0	$0	0	$0	0	$0	24	$2,232	0	$0	132	$24,596	$186
Task 4.4 - General Aviation Requirements	0	$0	8	$2,800	0	$0	0	$0	0	$0	0	$0	0	$0	48	$11,472	0	$0	60	$10,800	32	$4,448	0	$0	0	$0	0	$0	16	$1,488	0	$0	164	$31,008	$189
Task 4.5 - Landside Requirements	0	$0	12	$4,200	0	$0	0	$0	16	$5,280	24	$7,080	32	$8,768	88	$21,032	12	$2,580	88	$15,840	120	$16,680	0	$0	0	$0	0	$0	60	$5,580	0	$0	452	$87,040	$193
Task 4.6 - Support Facility Requirements	0	$0	24	$8,400	0	$0	0	$0	0	$0	0	$0	0	$0	56	$13,384	12	$2,580	96	$17,280	72	$10,008	0	$0	0	$0	0	$0	36	$3,348	0	$0	296	$55,000	$186
Task 4.7 - Demand Capacity and Facility Requirements Meetings	32	$12,320	12	$4,200	24	$9,000	0	$0	24	$7,920	16	$4,720	24	$6,576	20	$4,780	24	$5,160	56	$10,080	30	$4,170	0	$0	0	$0	0	$0	8	$744	0	$0	270	$69,670	$258
Task 4.8 - Draft Demand Capacity and Facility Requirements Working Paper	0	$0	16	$5,600	0	$0	24	$8,160	0	$0	12	$3,540	0	$0	36	$8,604	0	$0	40	$7,200	40	$5,560	20	$2,760	2	$268	4	$388	24	$2,232	2	$132	220	$44,444	$202

EXHIBIT A - CONSULTANT'S COMPENSATION PROPOSAL
TABLE C-5
BREAKDOWN OF NOT TO EXCEED PROFESSIONAL FEES
Ricondo Associates, Inc.

Ricondo & Associates, Inc.	Senior Officer with Travel Premium		Senior Officer		Officer with Travel Premium		Officer		Senior Director with Travel Premium		Senior Director		Director with Travel Premium		Director		Manager with Travel Premium		Manager		Senior Consultant		Technical Editor		Senior Graphic Designer		Graphic Designer		Consultant		Technical Specialist		TOTAL		
Rate ($/Hour):	$385		$350		$375		$340		$330		$295		$274		$239		$215		$180		$139		$138		$134		$97		$93		$66		labor		Avg. Hourly
	hours	Cost	hours	Cost	hours	Cost	hours	Cost	hours	Cost	hours	Cost	hours	Cost	hours	Cost	hours	Cost	hours	Cost	hours	Cost	hours	Cost	hours	Cost	hours	Cost	hours	Cost	hours	Cost	Rate
TASK 5: MOBILITY MASTER PLAN	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	$0
TASK 6: ALTERNATIVES DEFINITION AND EVALUATION	92	$35,420	188	$65,800	96	$36,000	200	$68,000	48	$15,840	134	$39,530	144	$39,456	576	$137,664	132	$28,380	992	$178,560	1,562	$217,118	16	$2,208	0	$0	0	$0	986	$91,698	0	$0	5,166	$955,674	$185
Task 6.1 - Overall Development and Mobility of the Future Vision	24	$9,240	36	$12,600	24	$9,000	36	$12,240	0	$0	0	$0	60	$16,440	0	$0	24	$5,160	36	$6,480	120	$16,680	0	$0	0	$0	0	$0	96	$8,928	0	$0	456	$96,768	$212
Task 6.2 - Evaluation Criteria	4	$1,540	12	$4,200	4	$1,500	8	$2,720	0	$0	2	$590	4	$1,096	32	$7,648	0	$0	28	$5,040	0	$0	0	$0	0	$0	0	$0	2	$186	0	$0	96	$24,520	$255
Task 6.3 - Functional Area Alternatives	16	$6,160	64	$22,400	24	$9,000	56	$19,040	32	$10,560	64	$18,880	24	$6,576	80	$19,120	32	$6,880	320	$57,600	320	$44,480	0	$0	0	$0	0	$0	320	$29,760	0	$0	1,352	$250,456	$185
Task 6.4 - Initial Screening of Alternatives	16	$6,160	24	$8,400	16	$6,000	40	$13,600	0	$0	0	$0	40	$10,960	400	$95,600	64	$13,760	400	$72,000	930	$129,270	0	$0	0	$0	0	$0	440	$40,920	0	$0	2,370	$396,670	$167
Task 6.5 - Preferred Integrated Alternative	16	$6,160	24	$8,400	12	$4,500	24	$8,160	0	$0	32	$9,440	0	$0	24	$5,736	0	$0	64	$11,520	80	$11,120	0	$0	0	$0	0	$0	56	$5,208	0	$0	332	$70,244	$212
Task 6.6 - Alternatives Evaluation Meetings	16	$6,160	12	$4,200	16	$6,000	12	$4,080	16	$5,280	12	$3,540	16	$4,384	12	$2,868	12	$2,580	64	$11,520	56	$7,784	0	$0	0	$0	0	$0	40	$3,720	0	$0	284	$62,116	$219
Task 6.7 - Draft Alternatives Working Paper	0	$0	16	$5,600	0	$0	24	$8,160	0	$0	24	$7,080	0	$0	28	$6,692	0	$0	80	$14,400	56	$7,784	16	$2,208	0	$0		$0	32	$2,976	0	$0	276	$54,900	$199
TASK 7: REFINEMENT OF THE PREFERRED DEVELOPMENT ALTERNATIVE	24	$9,240	64	$22,400	20	$7,500	68	$23,120	0	$0	12	$3,540	24	$6,576	144	$34,416	24	$5,160	240	$43,200	268	$37,252	12	$1,656	6	$804	0	$0	160	$14,880	0	$0	1,066	$209,744	$197
Task 7.1 - Alternatives Refinement	16	$6,160	40	$14,000	12	$4,500	40	$13,600	0	$0	0	$0	16	$4,384	96	$22,944	0	$0	120	$21,600	180	$25,020	0	$0	0	$0	0	$0	96	$8,928	0	$0	616	$121,136	$197
Task 7.2 - Preferred Alternative Renderings	0	$0	4	$1,400	0	$0	8	$2,720	0	$0	0	$0	0	$0	24	$5,736	0	$0	56	$10,080	40	$5,560	0	$0	0	$0	0	$0	16	$1,488	0	$0	148	$26,984	$182
Task 7.3 - Preferred Alternative Meetings	8	$3,080	12	$4,200	8	$3,000	8	$2,720	0	$0	0	$0	8	$2,192	0	$0	24	$5,160	24	$4,320	20	$2,780	0	$0	6	$804	0	$0	24	$2,232	0	$0	142	$30,488	$215
Task 7.4 - Draft Deliverables	0	$0	8	$2,800	0	$0	12	$4,080	0	$0	12	$3,540	0	$0	24	$5,736	0	$0	40	$7,200	28	$3,892	12	$1,656	0	$0	0	$0	24	$2,232	0	$0	160	$31,136	$195
TASK 8: IMPLEMENTATION PLAN FOR FUTURE IMPROVEMENTS AND NEW CAPITAL PROJECTS	60	$23,100	102	$35,700	16	$6,000	24	$8,160	16	$5,280	28	$8,260	16	$4,384	134	$32,026	28	$6,020	210	$37,800	158	$21,962	8	$1,104	8	$1,072	8	$776	58	$5,394	0	$0	874	$197,038	$225
Task 8.1 - Business Case and Scope Framework for Digital Twin Capital Investment	16	$6,160	16	$5,600	16	$6,000	16	$5,440	16	$5,280	24	$7,080	16	$4,384	24	$5,736	12	$2,580	12	$2,160	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	168	$50,420	$300
Task 8.2 - Short-, Intermediate-, and Long-Term Capital Projects and Implementation Schedule	8	$3,080	16	$5,600	0	$0	0	$0	0	$0	0	$0	0	$0	24	$5,736	0	$0	56	$10,080	56	$7,784	0	$0	0	$0	0	$0	28	$2,604	0	$0	188	$34,884	$186
Task 8.3 - Rough Order of Magnitude Cost Estimates	0	$0	6	$2,100	0	$0	4	$1,360	0	$0	0	$0	0	$0	8	$1,912	0	$0	12	$2,160	4	$556	0	$0	0	$0	0	$0	4	$372	0	$0	38	$8,460	$223
Task 8.4 - Funding Source Strategies	0	$0	12	$4,200	0	$0	4	$1,360	0	$0	0	$0	0	$0	8	$1,912	0	$0	18	$3,240	16	$2,224	0	$0	0	$0	0	$0	2	$186	0	$0	60	$13,122	$219
Task 8.5 - Financial Analysis Support	4	$1,540	8	$2,800	0	$0	0	$0	0	$0	0	$0	0	$0	4	$956	8	$1,720	16	$2,880	2	$278	0	$0	0	$0	0	$0	0	$0	0	$0	42	$10,174	$242
Task 8.6 - Capital Projects Implementation Schedule Update	8	$3,080	12	$4,200	0	$0	0	$0	0	$0	0	$0	0	$0	18	$4,302	0	$0	32	$5,760	40	$5,560	0	$0	0	$0	0	$0	12	$1,116	0	$0	122	$24,018	$197
Task 8.7 - Capital Projects and Implementation Plan Meetings	24	$9,240	16	$5,600	0	$0	0	$0	0	$0	0	$0	0	$0	24	$5,736	8	$1,720	24	$4,320	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	96	$26,616	$277
Task 8.8 - Draft Capital Projects and Implementation Plan Working Paper	0	$0	16	$5,600	0	$0	0	$0	0	$0	4	$1,180	0	$0	24	$5,736	0	$0	40	$7,200	40	$5,560	8	$1,104	8	$1,072	8	$776	12	$1,116	0	$0	160	$29,344	$183
TASK 9: ENVIRONMENTAL OVERVIEW	2	$770	2	$700	4	$1,500	12	$4,080	0	$0	0	$0	0	$0	8	$1,912	0	$0	4	$720	4	$556	4	$552	0	$0	0	$0	0	$0	0	$0	40	$10,790	$270
Task 9.1 - Outline of National Environmental Policy Act (NEPA) Requirements	0	$0	0	$0	0	$0	4	$1,360	0	$0	0	$0	0	$0	4	$956	0	$0	2	$360	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	10	$2,676	$268
Task 9.2 - Other Environmental Considerations	0	$0	0	$0	0	$0	2	$680	0	$0	0	$0	0	$0	2	$478	0	$0	2	$360	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	6	$1,518	$253
Task 9.3 - Environmental Overview Meetings	2	$770	2	$700	4	$1,500	2	$680	0	$0	0	$0	0	$0	2	$478	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	12	$4,128	$344
Task 9.4 - Draft Environmental Overview Working Paper	0	$0	0	$0	0	$0	4	$1,360	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	4	$556	4	$552	0	$0	0	$0	0	$0	0	$0	12	$2,468	$206
TASK 10: SUSTAINABILITY STRATEGY	0	$0	0	$0	14	$5,250	12	$4,080	0	$0	0	$0	10	$2,740	48	$11,472	0	$0	0	$0	42	$5,838	16	$2,208	0	$0	0	$0	40	$3,720	0	$0	182	$35,308	$194
Task 10.1 - Sustainability Initiatives	0	$0	0	$0	4	$1,500	4	$1,360	0	$0	0	$0	0	$0	32	$7,648	0	$0	0	$0	16	$2,224	0	$0	0	$0	0	$0	16	$1,488	0	$0	72	$14,220	$198
Task 10.2 - Sustainability Strategy Meetings	0	$0	0	$0	10	$3,750	4	$1,360	0	$0	0	$0	10	$2,740	0	$0	0	$0	0	$0	10	$1,390	0	$0	0	$0	0	$0	0	$0	0	$0	34	$9,240	$272
Task 10.3 - Draft Sustainability Strategy Working Paper	0	$0	0	$0	0	$0	4	$1,360	0	$0	0	$0	0	$0	16	$3,824	0	$0	0	$0	16	$2,224	16	$2,208	0	$0	0	$0	24	$2,232	0	$0	76	$11,848	$156
TASK 11: PHOTOGRAMMETRY AND FAA AIRPORTS-GIS	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	4	$956	4	$860	4	$720	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	12	$2,536	$211
Task 11.1 - Project Planning / FAA Airports-GIS Coordination / Field Survey Coordination	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	2	$478	2	$430	2	$360	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	6	$1,268	$211
Task 11.2 - Aerial Image Acquisition	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	$0
Task 11.3 - Establish Geodetic Control / Validate Existing PACS/SACS	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	$0
Task 11.4 - Survey Imagery Photo Control	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	$0
Task 11.5 - Aero Triangulation	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	$0
Task 11.6 - Digital Ortho Imagery	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	$0
Task 11.7 - Runway Surveys	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	$0
Task 11.8 - NAVAID Surveys	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	$0
Task 11.9 - Airport Airspace Analysis / Obstruction Surveys	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	$0
Task 11.10 - Raw Obstacle Data Collection	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	$0
Task 11.11 - Planimetric and Topographic Mapping Compilation	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	$0
Task 11.12 - Mapping Edit and GIS Formatting	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	$0
Task 11.13 - Airports-GIS Data Submission and Final Reporting	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	2	$478	2	$430	2	$360	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	6	$1,268	$211

EXHIBIT A - CONSULTANT'S COMPENSATION PROPOSAL
TABLE C-5
BREAKDOWN OF NOT TO EXCEED PROFESSIONAL FEES
Ricondo Associates, Inc.

Ricondo & Associates, Inc.	Senior Officer with Travel Premium		Senior Officer		Officer with Travel Premium		Officer		Senior Director with Travel Premium		Senior Director		Director with Travel Premium		Director		Manager with Travel Premium		Manager		Senior Consultant		Technical Editor		Senior Graphic Designer		Graphic Designer		Consultant		Technical Specialist		TOTAL		
Rate ($/Hour):	$385		$350		$375		$340		$330		$295		$274		$239		$215		$180		$139		$138		$134		$97		$93		$66		labor hours	Cost	Avg. Hourly Rate
	hours	Cost	hours	Cost	hours	Cost	hours	Cost	hours	Cost	hours	Cost	hours	Cost	hours	Cost	hours	Cost	hours	Cost	hours	Cost	hours	Cost	hours	Cost	hours	Cost	hours	Cost			
TASK 12: AIRPORT LAYOUT PLAN	12	$4,620	10	$3,500	4	$1,500	4	$1,360	4	$1,320	101	$29,795	4	$1,096	29	$6,931	24	$5,160	409	$73,620	995	$138,305	0	$0	0	$0	0	$0	849	$78,957	484	$32,604	2,939	$378,768	$129
Task 12.1 - Title Sheet	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	1	$180	1	$139	0	$0	0	$0	0	$0	1	$93	2	$132	5	$544	$109
Task 12.2 - Airport Data Sheets (2 sheets)	0	$0	1	$350	0	$0	0	$0	0	$0	2	$590	0	$0	2	$478	0	$0	24	$4,320	60	$8,340	0	$0	0	$0	0	$0	40	$3,720	24	$1,584	153	$19,382	$127
Task 12.3 - Airport Layout Plan Drawings (3 sheets)	0	$0	2	$700	0	$0	0	$0	0	$0	8	$2,360	0	$0	8	$1,912	0	$0	48	$8,640	160	$22,240	0	$0	0	$0	0	$0	120	$11,160	80	$5,280	426	$52,292	$123
Task 12.4 - Terminal Area Drawings (6 sheets)	0	$0	0	$0	0	$0	0	$0	0	$0	3	$885	0	$0	3	$717	0	$0	24	$4,320	40	$5,560	0	$0	0	$0	0	$0	80	$7,440	40	$2,640	190	$21,562	$113
Task 12.5 - Airport Airspace Drawings (2 sheets)	0	$0	0	$0	0	$0	0	$0	0	$0	16	$4,720	0	$0	8	$1,912	0	$0	24	$4,320	160	$22,240	0	$0	0	$0	0	$0	120	$11,160	80	$5,280	408	$49,632	$122
Task 12.6 - Runway Centerline Profile Sheets (2 sheets)	0	$0	0	$0	0	$0	0	$0	0	$0	8	$2,360	0	$0	4	$956	0	$0	16	$2,880	48	$6,672	0	$0	0	$0	0	$0	48	$4,464	48	$3,168	172	$20,500	$119
Task 12.7 - Inner Portion of the Approach Surface Drawings (16 sheets)	0	$0	1	$350	0	$0	0	$0	0	$0	16	$4,720	0	$0	0	$0	0	$0	60	$10,800	120	$16,680	0	$0	0	$0	0	$0	80	$7,440	40	$2,640	317	$42,630	$134
Task 12.8 - Runway Departure Surface Drawings (16 sheets)	0	$0	1	$350	0	$0	0	$0	0	$0	16	$4,720	0	$0	0	$0	0	$0	60	$10,800	120	$16,680	0	$0	0	$0	0	$0	80	$7,440	40	$2,640	317	$42,630	$134
Task 12.9 - Land Use Drawings (2 sheets)	0	$0	2	$700	0	$0	2	$680	0	$0	16	$4,720	0	$0	0	$0	0	$0	32	$5,760	120	$16,680	0	$0	0	$0	0	$0	120	$11,160	60	$3,960	352	$43,660	$124
Task 12.10 - Airport Property Map	0	$0	1	$350	0	$0	2	$680	0	$0	16	$4,720	0	$0	0	$0	0	$0	60	$10,800	120	$16,680	0	$0	0	$0	0	$0	120	$11,160	40	$2,640	359	$47,030	$131
Task 12.11 - Airport Layout Plan Meetings	12	$4,620	0	$0	4	$1,500	0	$0	4	$1,320	0	$0	4	$1,096	4	$956	24	$5,160	0	$0	6	$834	0	$0	0	$0	0	$0	0	$0	0	$0	58	$15,486	$267
Task 12.12 - Airport Layout Plan Production and Submittal	0	$0	2	$700	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	60	$10,800	40	$5,560	0	$0	0	$0	0	$0	40	$3,720	40	$2,640	182	$23,420	$129
TASK 13: EXHIBIT A' COORDINATION	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	8	$1,912	16	$3,440	16	$2,880	20	$2,780	0	$0	0	$0	0	$0	4	$372	0	$0	64	$11,384	$178
Task 13.1 - Adoption and Refinement of Exhibit 'A' Property Boundary and Authority Owned Parcels	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	8	$1,912	16	$3,440	16	$2,880	20	$2,780	0	$0	0	$0	0	$0	4	$372	0	$0	64	$11,384	$178
Task 13.2 - Easements	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	$0
TASK 14: STAKEHOLDER ENGAGEMENT	86	$33,110	90	$31,500	70	$26,250	64	$21,760	62	$20,460	61	$17,995	53	$14,522	81	$19,359	50	$10,750	212	$38,160	236	$32,804	4	$552	20	$2,680	20	$1,940	16	$1,488	0	$0	1,125	$273,330	$243
Task 14.1 - Community Outreach and Stakeholder Engagement Plan	8	$3,080	16	$5,600	0	$0	0	$0	0	$0	0	$0	0	$0	12	$2,868	8	$1,720	40	$7,200	0	$0	0	$0	4	$536	4	$388	0	$0	0	$0	92	$21,392	$233
Task 14.2 - Technical Stakeholder Engagement	60	$23,100	60	$21,000	52	$19,500	52	$17,680	44	$14,520	49	$14,455	44	$12,056	49	$11,711	24	$5,160	78	$14,040	176	$24,464	4	$552	4	$536	4	$388	4	$372	0	$0	704	$179,534	$255
Task 14.3 - Public Meetings and Communication	18	$6,930	12	$4,200	18	$6,750	12	$4,080	18	$5,940	12	$3,540	9	$2,466	4	$956	18	$3,870	54	$9,720	48	$6,672	0	$0	4	$536	4	$388	4	$372	0	$0	235	$56,420	$240
Task 14.4 - Publications and Website / Webpage Content	0	$0	2	$700	0	$0	0	$0	0	$0	0	$0	0	$0	16	$3,824	0	$0	40	$7,200	12	$1,668	0	$0	8	$1,072	8	$776	8	$744	0	$0	94	$15,984	$170
TASK 15: FINAL DOCUMENTATION	0	$0	90	$31,500	0	$0	64	$21,760	0	$0	116	$34,220	0	$0	136	$32,504	0	$0	220	$39,600	236	$32,804	68	$9,384	58	$7,772	30	$2,910	60	$5,580	0	$0	1,110	$218,034	$196
Task 15.1 - Draft Technical Report	0	$0	32	$11,200	0	$0	40	$13,600	0	$0	64	$18,880	0	$0	80	$19,120	0	$0	108	$19,440	120	$16,680	40	$5,520	24	$3,216	16	$1,552	32	$2,976	0	$0	572	$112,184	$196
Task 15.2 - Final Technical Report	0	$0	12	$4,200	0	$0	12	$4,080	0	$0	12	$3,540	0	$0	20	$4,780	0	$0	28	$5,040	48	$6,672	24	$3,312	8	$1,072	4	$388	16	$1,488	0	$0	200	$34,572	$173
Task 15.3 - Executive Summary Brochure	0	$0	24	$8,400	0	$0	8	$2,720	0	$0	8	$2,360	0	$0	16	$3,824	0	$0	32	$5,760	56	$7,784	0	$0	16	$2,144	4	$388	8	$744	0	$0	172	$34,124	$198
Task 15.4 - Executive Summary Presentation	0	$0	6	$2,100	0	$0	4	$1,360	0	$0	8	$2,360	0	$0	8	$1,912	0	$0	16	$2,880	8	$1,112	0	$0	8	$1,072	4	$388	2	$186	0	$0	64	$13,370	$209
Task 15.5 - MPU-2023 Strategic Plan Alignment Matrix	0	$0	16	$5,600	0	$0	0	$0	0	$0	24	$7,080	0	$0	12	$2,868	0	$0	36	$6,480	4	$556	4	$552	2	$268	2	$194	2	$186	0	$0	102	$23,784	$233
TASK 16: MASTER PLAN VIDEO	0	$0	4	$1,400	0	$0	12	$4,080	0	$0	8	$2,360	0	$0	18	$4,302	0	$0	80	$14,400	40	$5,560	0	$0	0	$0	0	$0	12	$1,116	0	$0	174	$33,218	$191
Task 16.1 - Content Creation, Integration and Review	0	$0	4	$1,400	0	$0	12	$4,080	0	$0	8	$2,360	0	$0	18	$4,302	0	$0	80	$14,400	40	$5,560	0	$0	0	$0	0	$0	12	$1,116	0	$0	174	$33,218	$191
Task 16.2 - Preferred Alternative Overview Video Production and Editing	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	$0
TOTAL NOT TO EXCEED PROFESSIONAL FEES:	387	$148,995	815	$285,250	385	$144,375	728	$247,520	257	$84,810	794	$234,230	519	$142,206	1952	$466,528	637	$136,955	4190	$754,200	5053	$702,367	208	$28,704	118	$15,812	66	$6,402	2965	$275,745	498	$32,868	19,604	$3,706,967.00	$189

EXHIBIT A - CONSULTANT'S COMPENSATION PROPOSAL
TABLE C-5
BREAKDOWN OF NOT TO EXCEED PROFESSIONAL FEES
Carolyn Binder, CPA, LLC (DBE)

Carolyn Binder, CPA, LLC (DBE)	Senior Consultant		TOTAL		
Rate ($/Hour):	$117		labor		Avg. Hourly
	hours	Cost	hours	Cost	Rate
TASKS					
TASK 1: PROJECT INITIATION AND ADMINISTRATION	330	$38,610	330	$38,610	$117
Task 1.1 - Initiation Meeting	0	$0	0	$0	$0
Task 1.2 - Project Coordination Meetings	0	$0	0	$0	$0
Task 1.3 - Project Administration	330	$38,610	330	$38,610	$117
Task 1.4 - Ricondo / Greater Orlando Aviation Authority Secured Data Exchange Platform	0	$0	0	$0	$0
TASK 2: INVENTORY OF EXISTING CONDITIONS	0	$0	0	$0	$0
TASK 3: AVIATION ACTIVITY FORECAST	0	$0	0	$0	$0
TASK 4: DEMAND CAPACITY AND FACILITY REQUIREMENTS	0	$0	0	$0	$0
TASK 5: MOBILITY MASTER PLAN	0	$0	0	$0	$0
TASK 6: ALTERNATIVES DEFINITION AND EVALUATION	0	$0	0	$0	$0
TASK 7: REFINEMENT OF THE PREFERRED DEVELOPMENT ALTERNATIVE	0	$0	0	$0	$0
TASK 8: IMPLEMENTATION PLAN FOR FUTURE IMPROVEMENTS AND NEW CAPITAL PROJECTS	0	$0	0	$0	$0
TASK 9: ENVIRONMENTAL OVERVIEW	0	$0	0	$0	$0
TASK 10: SUSTAINABILITY STRATEGY	0	$0	0	$0	$0
TASK 11: PHOTOGRAMMETRY AND FAA AIRPORTS-GIS	0	$0	0	$0	$0
TASK 12: AIRPORT LAYOUT PLAN	0	$0	0	$0	$0
TASK 13: EXHIBIT A' COORDINATION	0	$0	0	$0	$0
TASK 14: STAKEHOLDER ENGAGEMENT	0	$0	0	$0	$0
TASK 15: FINAL DOCUMENTATION	0	$0	0	$0	$0
TASK 16: MASTER PLAN VIDEO	0	$0	0	$0	$0
TOTAL NOT TO EXCEED PROFESSIONAL FEES:	**330**	**$38,610**	**330**	**38,610**	**$117**

EXHIBIT A - CONSULTANT'S COMPENSATION PROPOSAL
TABLE C-5
BREAKDOWN OF NOT TO EXCEED PROFESSIONAL FEES
Environmental Science Associates

Environmental Science Associates	Senior Principal Consultant		Principal Consultant 6		Principal Consultant 4		Managing Consultant 3		Senior Consultant 4		Senior Consultant 3		Associate Consultant 3		Senior Publciations Specialist		Publications Specialist		TOTAL		
Rate ($/Hour):	$296		$265		$242		$198		$153		$135		$129		$125		$123		labor		Avg. Hourly
	hours	Cost	hours	Cost	hours	Cost	hours	Cost	hours	Cost	hours	Cost	hours	Cost	hours	Cost	hours	Cost	hours	Cost	Rate
TASKS																					
TASK 1: PROJECT INITIATION AND ADMINISTRATION	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	$0
TASK 2: INVENTORY OF EXISTING CONDITIONS	4	$1,184	2	$530	12	$2,904	20	$3,960	20	$3,060	8	$1,080	0	$0	0	$0	0	$0	66	$12,718	$193
Task 2.1 - Tenant Survey	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	$0
Task 2.2 - Passenger Intercept Survey	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	$0
Task 2.3 - Existing Document and Data Collection	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	$0
Task 2.4 - Inventory of Airfield and Airspace Conditions	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	$0
Task 2.5 - Inventory of Airline Terminals and Gates	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	$0
Task 2.6 - Inventory of Landside Facilities	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	$0
Task 2.7 - Inventory of Cargo Facilities	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	$0
Task 2.8 - Inventory of General Aviation Facilities	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	$0
Task 2.9 - Inventory of Support Facilities	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	$0
Task 2.10 - Inventory of Surrounding Land Uses	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	$0
Task 2.11 - Inventory of Environmental Conditions	4	$1,184	2	$530	12	$2,904	20	$3,960	20	$3,060	8	$1,080	0	$0	0	$0	0	$0	66	$12,718	$193
Task 2.12 - Inventory Meetings	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	$0
Task 2.13 - Draft Inventory Working Paper	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	$0
TASK 3: AVIATION ACTIVITY FORECAST	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	$0
TASK 4: DEMAND CAPACITY AND FACILITY REQUIREMENTS	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	$0
TASK 5: MOBILITY MASTER PLAN	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	$0
TASK 6: ALTERNATIVES DEFINITION AND EVALUATION	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	$0
TASK 7: REFINEMENT OF THE PREFERRED DEVELOPMENT ALTERNATIVE	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	$0
TASK 8: IMPLEMENTATION PLAN FOR FUTURE IMPROVEMENTS AND NEW CAPITAL PROJECTS	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	$0
TASK 9: ENVIRONMENTAL OVERVIEW	32	$9,472	30	$7,950	24	$5,808	80	$15,840	16	$2,448	32	$4,320	12	$1,548	0	$0	0	$0	226	$47,386	$210
Task 9.1 - Outline of National Environmental Policy Act (NEPA) Requirements	12	$3,552	6	$1,590	12	$2,904	24	$4,752	0	$0	12	$1,620	0	$0	0	$0	0	$0	66	$14,418	$218
Task 9.2 - Other Environmental Considerations	8	$2,368	8	$2,120	0	$0	16	$3,168	0	$0	0	$0	0	$0	0	$0	0	$0	32	$7,656	$239
Task 9.3 - Environmental Overview Meetings	4	$1,184	4	$1,060	0	$0	8	$1,584	0	$0	0	$0	0	$0	0	$0	0	$0	16	$3,828	$239
Task 9.4 - Draft Environmental Overview Working Paper	8	$2,368	12	$3,180	12	$2,904	32	$6,336	16	$2,448	20	$2,700	12	$1,548	0	$0	0	$0	112	$21,484	$192
TASK 10: SUSTAINABILITY STRATEGY	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	$0
TASK 11: PHOTOGRAMMETRY AND FAA AIRPORTS-GIS	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	$0
TASK 12: AIRPORT LAYOUT PLAN	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	$0
TASK 13: EXHIBIT A' COORDINATION	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	$0
TASK 14: STAKEHOLDER ENGAGEMENT	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	$0
TASK 15: FINAL DOCUMENTATION	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	$0
TASK 16: MASTER PLAN VIDEO	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	$0
TOTAL NOT TO EXCEED PROFESSIONAL FEES:	**36**	**$10,656**	**32**	**$8,480**	**36**	**$8,712**	**100**	**$19,800**	**36**	**$5,508**	**40**	**$5,400**	**12**	**$1,548**	**0**	**$0**	**0**	**$0**	**292**	**$60,104.00**	**$206**

EXHIBIT A - CONSULTANT'S COMPENSATION PROPOSAL
TABLE C-5
BREAKDOWN OF NOT TO EXCEED PROFESSIONAL FEES
Graphic Support Services (DBE)

Graphic Support Services (DBE)	Senior Graphic Designer		TOTAL		
Rate ($/Hour):	$124		labor hours	Cost	Avg. Hourly Rate
	hours	Cost			
TASKS					
TASK 1: PROJECT INITIATION AND ADMINISTRATION	0	$0	0	$0	$0
TASK 2: INVENTORY OF EXISTING CONDITIONS	0	$0	0	$0	$0
TASK 3: AVIATION ACTIVITY FORECAST	0	$0	0	$0	$0
TASK 4: DEMAND CAPACITY AND FACILITY REQUIREMENTS	0	$0	0	$0	$0
TASK 5: MOBILITY MASTER PLAN	0	$0	0	$0	$0
TASK 6: ALTERNATIVES DEFINITION AND EVALUATION	0	$0	0	$0	$0
TASK 7: REFINEMENT OF THE PREFERRED DEVELOPMENT ALTERNATIVE	0	$0	0	$0	$0
TASK 8: IMPLEMENTATION PLAN FOR FUTURE IMPROVEMENTS AND NEW CAPITAL PROJECTS	0	$0	0	$0	$0
TASK 9: ENVIRONMENTAL OVERVIEW	0	$0	0	$0	$0
TASK 10: SUSTAINABILITY STRATEGY	0	$0	0	$0	$0
TASK 11: PHOTOGRAMMETRY AND FAA AIRPORTS-GIS	0	$0	0	$0	$0
TASK 12: AIRPORT LAYOUT PLAN	0	$0	0	$0	$0
TASK 13: EXHIBIT A' COORDINATION	0	$0	0	$0	$0
TASK 14: STAKEHOLDER ENGAGEMENT	80	$9,920	80	$9,920	$124
Task 14.1 - Community Outreach and Stakeholder Engagement Plan	0	$0	0	$0	$0
Task 14.2 - Technical Stakeholder Engagement	0	$0	0	$0	$0
Task 14.3 - Public Meetings and Communication	60	$7,440	60	$7,440	$124
Task 14.4 - Publications and Website / Webpage Content	20	$2,480	20	$2,480	$124
TASK 15: FINAL DOCUMENTATION	210	$26,040	210	$26,040	$124
Task 15.1 - Draft Technical Report	0	$0	0	$0	$0
Task 15.2 - Final Technical Report	0	$0	0	$0	$0
Task 15.3 - Executive Summary Brochure	120	$14,880	120	$14,880	$124
Task 15.4 - Executive Summary Presentation	90	$11,160	90	$11,160	$124
Task 15.5 - MPU-2023 Strategic Plan Alignment Matrix	0	$0	0	$0	$0
TASK 16: MASTER PLAN VIDEO	0	$0	0	$0	$0
TOTAL NOT TO EXCEED PROFESSIONAL FEES:	290	$35,960	290	$35,960.00	$124

EXHIBIT A - CONSULTANT'S COMPENSATION PROPOSAL
TABLE C-5
BREAKDOWN OF NOT TO EXCEED PROFESSIONAL FEES
Illustrate My Design (DBE)

Illustrate My Design (DBE)	Principal		Senior Consultant		Consultant		TOTAL		
Rate ($/Hour):	$215		$195		$125		labor hours	Cost	Avg. Hourly Rate
	hours	Cost	hours	Cost	hours	Cost			
TASKS									
TASK 1: PROJECT INITIATION AND ADMINISTRATION	0	$0	0	$0	0	$0	0	$0	$0
TASK 2: INVENTORY OF EXISTING CONDITIONS	0	$0	0	$0	0	$0	0	$0	$0
TASK 3: AVIATION ACTIVITY FORECAST	0	$0	0	$0	0	$0	0	$0	$0
TASK 4: DEMAND CAPACITY AND FACILITY REQUIREMENTS	0	$0	0	$0	0	$0	0	$0	$0
TASK 5: MOBILITY MASTER PLAN	0	$0	0	$0	0	$0	0	$0	$0
TASK 6: ALTERNATIVES DEFINITION AND EVALUATION	0	$0	0	$0	0	$0	0	$0	$0
TASK 7: REFINEMENT OF THE PREFERRED DEVELOPMENT ALTERNATIVE	52	$11,180	132	$25,740	172	$21,500	356	$58,420	$164
Task 7.1 - Alternatives Refinement	0	$0	0	$0	0	$0	0	$0	$0
Task 7.2 - Preferred Alternative Renderings	40	$8,600	120	$23,400	160	$20,000	320	$52,000	$163
Task 7.3 - Preferred Alternative Meetings	12	$2,580	12	$2,340	12	$1,500	36	$6,420	$178
Task 7.4 - Draft Deliverables	0	$0	0	$0	0	$0	0	$0	$0
TASK 8: IMPLEMENTATION PLAN FOR FUTURE IMPROVEMENTS AND NEW CAPITAL PROJECTS	0	$0	0	$0	0	$0	0	$0	$0
TASK 9: ENVIRONMENTAL OVERVIEW	0	$0	0	$0	0	$0	0	$0	$0
TASK 10: SUSTAINABILITY STRATEGY	0	$0	0	$0	0	$0	0	$0	$0
TASK 11: PHOTOGRAMMETRY AND FAA AIRPORTS-GIS	0	$0	0	$0	0	$0	0	$0	$0
TASK 12: AIRPORT LAYOUT PLAN	0	$0	0	$0	0	$0	0	$0	$0
TASK 13: EXHIBIT A' COORDINATION	0	$0	0	$0	0	$0	0	$0	$0
TASK 14: STAKEHOLDER ENGAGEMENT	0	$0	0	$0	0	$0	0	$0	$0
TASK 15: FINAL DOCUMENTATION	0	$0	0	$0	0	$0	0	$0	$0
TASK 16: MASTER PLAN VIDEO	80	$17,200	184	$35,880	240	$30,000	504	$83,080	$165
Task 16.1 - Content Creation, Integration and Review	0	$0	0	$0	0	$0	0	$0	$0
Task 16.2 - Preferred Alternative Overview Video Production and Editing	80	$17,200	184	$35,880	240	$30,000	504	$83,080	$165
TOTAL NOT TO EXCEED PROFESSIONAL FEES:	132	$28,380	316	$61,620	412	$51,500	860	$141,500.00	$165

EXHIBIT A - CONSULTANT'S COMPENSATION PROPOSAL
TABLE C-5
BREAKDOWN OF NOT TO EXCEED PROFESSIONAL FEES
KMI International (LDB)

KMI International (LDB)	Sr. Estimator		Estimator / Scheduler II		Estimator / Scheduler I		TOTAL		
Rate ($/Hour):	$208		$157		$106				
	hours	Cost	hours	Cost	hours	Cost	labor hours	Cost	Avg. Hourly Rate
TASKS									
TASK 1: PROJECT INITIATION AND ADMINISTRATION	0	$0	0	$0	0	$0	0	$0	$0
TASK 2: INVENTORY OF EXISTING CONDITIONS	0	$0	0	$0	0	$0	0	$0	$0
TASK 3: AVIATION ACTIVITY FORECAST	0	$0	0	$0	0	$0	0	$0	$0
TASK 4: DEMAND CAPACITY AND FACILITY REQUIREMENTS	0	$0	0	$0	0	$0	0	$0	$0
TASK 5: MOBILITY MASTER PLAN	0	$0	0	$0	0	$0	0	$0	$0
TASK 6: ALTERNATIVES DEFINITION AND EVALUATION	160	$33,280	160	$25,120	0	$0	320	$58,400	$183
Task 6.1 - Overall Development and Mobility of the Future Vision	0	$0	0	$0	0	$0	0	$0	$0
Task 6.2 - Evaluation Criteria	0	$0	0	$0	0	$0	0	$0	$0
Task 6.3 - Functional Area Alternatives	0	$0	0	$0	0	$0	0	$0	$0
Task 6.4 - Initial Screening of Alternatives	160	$33,280	160	$25,120	0	$0	320	$58,400	$183
Task 6.5 - Preferred Integrated Alternative	0	$0	0	$0	0	$0	0	$0	$0
Task 6.6 - Alternatives Evaluation Meetings	0	$0	0	$0	0	$0	0	$0	$0
Task 6.7 - Draft Alternatives Working Paper	0	$0	0	$0	0	$0	0	$0	$0
TASK 7: REFINEMENT OF THE PREFERRED DEVELOPMENT ALTERNATIVE	0	$0	0	$0	0	$0	0	$0	$0
TASK 8: IMPLEMENTATION PLAN FOR FUTURE IMPROVEMENTS AND NEW CAPITAL PROJECTS	520	$108,160	520	$81,640	0	$0	1,040	$189,800	$183
Task 8.1 - Business Case and Scope Framework for Digital Twin Capital Investment	0	$0	0	$0	0	$0	0	$0	$0
Task 8.2 - Short-, Intermediate-, and Long-Term Capital Projects and Implementation Schedule	0	$0	0	$0	0	$0	0	$0	$0
Task 8.3 - Rough Order of Magnitude Cost Estimates	520	$108,160	520	$81,640	0	$0	1,040	$189,800	$183
Task 8.4 - Funding Source Strategies	0	$0	0	$0	0	$0	0	$0	$0
Task 8.5 - Financial Analysis Support	0	$0	0	$0	0	$0	0	$0	$0
Task 8.6 - Capital Projects Implementation Schedule Update	0	$0	0	$0	0	$0	0	$0	$0
Task 8.7 - Capital Projects and Implementation Plan Meetings	0	$0	0	$0	0	$0	0	$0	$0
Task 8.8 - Draft Capital Projects and Implementation Plan Working Paper	0	$0	0	$0	0	$0	0	$0	$0
TASK 9: ENVIRONMENTAL OVERVIEW	0	$0	0	$0	0	$0	0	$0	$0
TASK 10: SUSTAINABILITY STRATEGY	0	$0	0	$0	0	$0	0	$0	$0
TASK 11: PHOTOGRAMMETRY AND FAA AIRPORTS-GIS	0	$0	0	$0	0	$0	0	$0	$0
TASK 12: AIRPORT LAYOUT PLAN	0	$0	0	$0	0	$0	0	$0	$0
TASK 13: EXHIBIT A' COORDINATION	0	$0	0	$0	0	$0	0	$0	$0
TASK 14: STAKEHOLDER ENGAGEMENT	0	$0	0	$0	0	$0	0	$0	$0
TASK 15: FINAL DOCUMENTATION	0	$0	0	$0	0	$0	0	$0	$0
TASK 16: MASTER PLAN VIDEO	0	$0	0	$0	0	$0	0	$0	$0
TOTAL NOT TO EXCEED PROFESSIONAL FEES:	680	$141,440	680	$106,760	0	$0	1,360	$248,200.00	$183

EXHIBIT A - CONSULTANT'S COMPENSATION PROPOSAL
TABLE C-5
BREAKDOWN OF NOT TO EXCEED PROFESSIONAL FEES
Martinez Geospatial (DBE)

Martinez Geospatial (DBE)	Project Manager		Licensed Professional Surveyor		Senior Photogrammetrist		CADD Technician		Survey Field Technician		Geospatial Supervisor		Airspace Technician		Geospatial Techician II		Geospatial Technician I		TOTAL		
Rate ($/Hour):	$187		$142		$106		$94		$91		$80		$80		$77		$71		labor		Avg. Hourly
	hours	Cost	hours	Cost	hours	Cost	hours	Cost	hours	Cost	hours	Cost	hours	Cost	hours	Cost	hours	Cost	hours	Cost	Rate
TASKS																					
TASK 1: PROJECT INITIATION AND ADMINISTRATION	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	$0
TASK 2: INVENTORY OF EXISTING CONDITIONS	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	$0
TASK 3: AVIATION ACTIVITY FORECAST	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	$0
TASK 4: DEMAND CAPACITY AND FACILITY REQUIREMENTS	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	$0
TASK 5: MOBILITY MASTER PLAN	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	$0
TASK 6: ALTERNATIVES DEFINITION AND EVALUATION	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	$0
TASK 7: REFINEMENT OF THE PREFERRED DEVELOPMENT ALTERNATIVE	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	$0
TASK 8: IMPLEMENTATION PLAN FOR FUTURE IMPROVEMENTS AND NEW CAPITAL PROJECTS	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	$0
TASK 9: ENVIRONMENTAL OVERVIEW	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	$0
TASK 10: SUSTAINABILITY STRATEGY	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	$0
TASK 11: PHOTOGRAMMETRY AND FAA AIRPORTS-GIS	62	$11,594	138	$19,596	48	$5,088	243	$22,842	340	$30,940	200	$16,000	170	$13,600	1628	$125,356	144	$10,224	2,973	$255,240	$86
Task 11.1 - Project Planning / FAA Airports-GIS Coordination / Field Survey Coordination	16	$2,992	24	$3,408	0	$0	0	$0	20	$1,820	0	$0	0	$0	0	$0	0	$0	60	$8,220	$137
Task 11.2 - Aerial Image Acquisition	4	$748	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	4	$748	$187
Task 11.3 - Establish Geodetic Control / Validate Existing PACS/SACS	1	$187	12	$1,704	0	$0	0	$0	24	$2,184	0	$0	0	$0	0	$0	0	$0	37	$4,075	$110
Task 11.4 - Survey Imagery Photo Control	3	$561	30	$4,260	0	$0	0	$0	148	$13,468	0	$0	0	$0	0	$0	0	$0	181	$18,289	$101
Task 11.5 - Aero Triangulation	2	$374	0	$0	40	$4,240	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	42	$4,614	$110
Task 11.6 - Digital Ortho Imagery	2	$374	0	$0	8	$848	0	$0	0	$0	24	$1,920	0	$0	0	$0	144	$10,224	178	$13,366	$75
Task 11.7 - Runway Surveys	3	$561	12	$1,704	0	$0	0	$0	20	$1,820	0	$0	0	$0	0	$0	0	$0	35	$4,085	$117
Task 11.8 - NAVAID Surveys	3	$561	28	$3,976	0	$0	0	$0	80	$7,280	0	$0	0	$0	0	$0	0	$0	111	$11,817	$106
Task 11.9 - Airport Airspace Analysis / Obstruction Surveys	4	$748	0	$0	0	$0	32	$3,008	0	$0	24	$1,920	122	$9,760	0	$0	0	$0	182	$15,436	$85
Task 11.10 - Raw Obstacle Data Collection	8	$1,496	0	$0	0	$0	12	$1,128	0	$0	16	$1,280	48	$3,840	0	$0	0	$0	84	$7,744	$92
Task 11.11 - Planimetric and Topographic Mapping Compilation	4	$748	0	$0	0	$0	8	$752	0	$0	120	$9,600	0	$0	1628	$125,356	0	$0	1,760	$136,456	$78
Task 11.12 - Mapping Edit and GIS Formatting	4	$748	0	$0	0	$0	183	$17,202	0	$0	16	$1,280	0	$0	0	$0	0	$0	203	$19,230	$95
Task 11.13 - Airports-GIS Data Submission and Final Reporting	8	$1,496	32	$4,544	0	$0	8	$752	48	$4,368	0	$0	0	$0	0	$0	0	$0	96	$11,160	$116
TASK 12: AIRPORT LAYOUT PLAN	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	$0
TASK 13: EXHIBIT A' COORDINATION	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	$0
TASK 14: STAKEHOLDER ENGAGEMENT	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	$0
TASK 15: FINAL DOCUMENTATION	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	$0
TASK 16: MASTER PLAN VIDEO	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	$0
TOTAL NOT TO EXCEED PROFESSIONAL FEES:	62	$11,594	138	$19,596	48	$5,088	243	$22,842	340	$30,940	200	$16,000	170	$13,600	1628	$125,356	144	$10,224	2,973	$255,240.00	$86

EXHIBIT A - CONSULTANT'S COMPENSATION PROPOSAL
TABLE C-5
BREAKDOWN OF NOT TO EXCEED PROFESSIONAL FEES
Quest Corporation of America, Inc. (DBE)

Quest Corporation of America, Inc. (DBE)	Sr. Community Outreach Specialist		Project Manager		Community Outreach Specialist		Data Analyst		Tech Support		Multimedia PM		Sr. Multimedia AV Technician		TOTAL		
Rate ($/Hour):	$142.00		$124.00		$106.00		$113.00		$77.00		$124.00		$95.00		labor		Avg. Hourly
	hours	Cost	hours	Cost	hours	Cost	hours	Cost	hours	Cost	hours	Cost	hours	Cost	hours	Cost	Rate
TASKS																	
TASK 1: PROJECT INITIATION AND ADMINISTRATION	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	$0
TASK 2: INVENTORY OF EXISTING CONDITIONS	92	$13,064.00	243	$30,132.00	537	$56,922.00	84	$9,492.00	60	$4,620.00	0	$0.00	0	$0.00	1,016	$114,230.00	$112
Task 2.1 - Tenant Survey	20	$2,840.00	100	$12,400.00	60	$6,360.00	20	$2,260.00	50	$3,850.00	0	$0.00	0	$0.00	250	$27,710.00	$111
Task 2.2 - Passenger Intercept Survey	72	$10,224.00	143	$17,732.00	477	$50,562.00	64	$7,232.00	10	$770.00	0	$0.00	0	$0.00	766	$86,520.00	$113
Task 2.3 - Existing Document and Data Collection	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	$0
Task 2.4 - Inventory of Airfield and Airspace Conditions	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	$0
Task 2.5 - Inventory of Airline Terminals and Gates	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	$0
Task 2.6 - Inventory of Landside Facilities	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	$0
Task 2.7 - Inventory of Cargo Facilities	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	$0
Task 2.8 - Inventory of General Aviation Facilities	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	$0
Task 2.9 - Inventory of Support Facilities	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	$0
Task 2.10 - Inventory of Surrounding Land Uses	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	$0
Task 2.11 - Inventory of Environmental Conditions	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	$0
Task 2.12 - Inventory Meetings	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	$0
Task 2.13 - Draft Inventory Working Paper	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	$0
TASK 3: AVIATION ACTIVITY FORECAST	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	$0
TASK 4: DEMAND CAPACITY AND FACILITY REQUIREMENTS	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	$0
TASK 5: MOBILITY MASTER PLAN	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	$0
TASK 6: ALTERNATIVES DEFINITION AND EVALUATION	60	$8,520.00	240	$29,760.00	60	$6,360.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	360	$44,640.00	$124
Task 6.1 - Overall Development and Mobility of the Future Vision	60	$8,520.00	240	$29,760.00	60	$6,360.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	360	$44,640.00	$124
Task 6.2 - Evaluation Criteria	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	$0
Task 6.3 - Functional Area Alternatives	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	$0
Task 6.4 - Initial Screening of Alternatives	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	$0
Task 6.5 - Preferred Integrated Alternative	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	$0
Task 6.6 - Alternatives Evaluation Meetings	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	$0
Task 6.7 - Draft Alternatives Working Paper	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	$0

EXHIBIT A - CONSULTANT'S COMPENSATION PROPOSAL
TABLE C-5
BREAKDOWN OF NOT TO EXCEED PROFESSIONAL FEES
Quest Corporation of America, Inc. (DBE)

Quest Corporation of America, Inc. (DBE)	Sr. Community Outreach Specialist		Project Manager		Community Outreach Specialist		Data Analyst		Tech Support		Multimedia PM		Sr. Multimedia AV Technician		TOTAL		
Rate ($/Hour):	$142.00		$124.00		$106.00		$113.00		$77.00		$124.00		$95.00		labor hours		Avg. Hourly Rate
	hours	Cost	hours	Cost	hours	Cost	hours	Cost	hours	Cost	hours	Cost	hours	Cost		Cost	
TASK 7: REFINEMENT OF THE PREFERRED DEVELOPMENT ALTERNATIVE	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	$0
TASK 8: IMPLEMENTATION PLAN FOR FUTURE IMPROVEMENTS AND NEW CAPITAL PROJECTS	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	$0
TASK 9: ENVIRONMENTAL OVERVIEW	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	$0
TASK 10: SUSTAINABILITY STRATEGY	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	$0
TASK 11: PHOTOGRAMMETRY AND FAA AIRPORTS-GIS	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	$0
TASK 12: AIRPORT LAYOUT PLAN	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	$0
TASK 13: EXHIBIT A' COORDINATION	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	$0
TASK 14: STAKEHOLDER ENGAGEMENT	92	$13,064.00	250	$31,000.00	125	$13,250.00	0	$0.00	30	$2,310.00	0	$0.00	20	$1,900.00	517	$61,524.00	$119
Task 14.1 - Community Outreach and Stakeholder Engagement Plan	10	$1,420.00	40	$4,960.00	10	$1,060.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	60	$7,440.00	$124
Task 14.2 - Technical Stakeholder Engagement	20	$2,840.00	80	$9,920.00	40	$4,240.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	140	$17,000.00	$121
Task 14.3 - Public Meetings and Communication	60	$8,520.00	120	$14,880.00	75	$7,950.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	255	$31,350.00	$123
Task 14.4 - Publications and Website / Webpage Content	2	$284.00	10	$1,240.00	0	$0.00	0	$0.00	30	$2,310.00	0	$0.00	20	$1,900.00	62	$5,734.00	$92
TASK 15: FINAL DOCUMENTATION	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	$0
TASK 16: MASTER PLAN VIDEO	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	$0
TOTAL NOT TO EXCEED PROFESSIONAL FEES:	244	$34,648.00	733	$90,892.00	722	$76,532.00	84	$9,492.00	90	$6,930.00	0	$0.00	20	$1,900.00	1,893	$220,394.00	$116

EXHIBIT A - CONSULTANT'S COMPENSATION PROPOSAL
TABLE C-5
BREAKDOWN OF NOT TO EXCEED PROFESSIONAL FEES
Wonderstruct (DBE)

Wonderstruct (DBE)	Principal		Senior QC Reviewer		TOTAL		
Rate ($/Hour):	$126		$111		labor hours	Cost	Avg. Hourly Rate
	hours	Cost	hours	Cost			
TASKS							
TASK 1: PROJECT INITIATION AND ADMINISTRATION	0	$0	0	$0	0	$0	$0
TASK 2: INVENTORY OF EXISTING CONDITIONS	0	$0	18	$1,998	18	$1,998	$111
Task 2.1 - Tenant Survey	0	$0	0	$0	0	$0	$0
Task 2.2 - Passenger Intercept Survey	0	$0	0	$0	0	$0	$0
Task 2.3 - Existing Document and Data Collection	0	$0	0	$0	0	$0	$0
Task 2.4 - Inventory of Airfield and Airspace Conditions	0	$0	0	$0	0	$0	$0
Task 2.5 - Inventory of Airline Terminals and Gates	0	$0	0	$0	0	$0	$0
Task 2.6 - Inventory of Landside Facilities	0	$0	0	$0	0	$0	$0
Task 2.7 - Inventory of Cargo Facilities	0	$0	0	$0	0	$0	$0
Task 2.8 - Inventory of General Aviation Facilities	0	$0	0	$0	0	$0	$0
Task 2.9 - Inventory of Support Facilities	0	$0	0	$0	0	$0	$0
Task 2.10 - Inventory of Surrounding Land Uses	0	$0	0	$0	0	$0	$0
Task 2.11 - Inventory of Environmental Conditions	0	$0	0	$0	0	$0	$0
Task 2.12 - Inventory Meetings	0	$0	0	$0	0	$0	$0
Task 2.13 - Draft Inventory Working Paper	0	$0	18	$1,998	18	$1,998	$111
TASK 3: AVIATION ACTIVITY FORECAST	0	$0	18	$1,998	18	$1,998	$111
Task 3.1 - Forecast Data Collection	0	$0	0	$0	0	$0	$0
Task 3.2 - Market Assessment and Review of Factors Affecting Aviation Demand	0	$0	0	$0	0	$0	$0
Task 3.3 - Baseline Activity Forecasts	0	$0	0	$0	0	$0	$0
Task 3.4 - Peak Month and Peak Month Average Day Derivative Forecasts	0	$0	0	$0	0	$0	$0
Task 3.5 - Design Day Flight Schedules	0	$0	0	$0	0	$0	$0
Task 3.6 - Alternative Demand Scenario	0	$0	0	$0	0	$0	$0
Task 3.7 - Forecast Meetings	0	$0	0	$0	0	$0	$0
Task 3.8 - Draft Forecast Working Paper	0	$0	18	$1,998	18	$1,998	$111

EXHIBIT A - CONSULTANT'S COMPENSATION PROPOSAL
TABLE C-5
BREAKDOWN OF NOT TO EXCEED PROFESSIONAL FEES
Wonderstruct (DBE)

Wonderstruct (DBE)	Principal		Senior QC Reviewer		TOTAL		
Rate ($/Hour):	$126		$111		labor hours	Cost	Avg. Hourly Rate
	hours	Cost	hours	Cost			
TASK 4: DEMAND CAPACITY AND FACILITY REQUIREMENTS	**0**	**$0**	**18**	**$1,998**	**18**	**$1,998**	**$111**
Task 4.1 - Airfield and Airspace Requirements	0	$0	0	$0	0	$0	$0
Task 4.2 - Terminal and Airside Requirements	0	$0	0	$0	0	$0	$0
Task 4.3 - Cargo Requirements	0	$0	0	$0	0	$0	$0
Task 4.4 - General Aviation Requirements	0	$0	0	$0	0	$0	$0
Task 4.5 - Landside Requirements	0	$0	0	$0	0	$0	$0
Task 4.6 - Support Facility Requirements	0	$0	0	$0	0	$0	$0
Task 4.7 - Demand Capacity and Facility Requirements Meetings	0	$0	0	$0	0	$0	$0
Task 4.8 - Draft Demand Capacity and Facility Requirements Working Paper	0	$0	18	$1,998	18	$1,998	$111
TASK 5: MOBILITY MASTER PLAN	**0**	**$0**	**0**	**$0**	**0**	**$0**	**$0**
TASK 6: ALTERNATIVES DEFINITION AND EVALUATION	**0**	**$0**	**90**	**$9,990**	**90**	**$9,990**	**$111**
Task 6.1 - Overall Development and Mobility of the Future Vision	0	$0	0	$0	0	$0	$0
Task 6.2 - Evaluation Criteria	0	$0	0	$0	0	$0	$0
Task 6.3 - Functional Area Alternatives	0	$0	0	$0	0	$0	$0
Task 6.4 - Initial Screening of Alternatives	0	$0	0	$0	0	$0	$0
Task 6.5 - Preferred Integrated Alternative	0	$0	0	$0	0	$0	$0
Task 6.6 - Alternatives Evaluation Meetings	0	$0	0	$0	0	$0	$0
Task 6.7 - Draft Alternatives Working Paper	0	$0	90	$9,990	90	$9,990	$111
TASK 7: REFINEMENT OF THE PREFERRED DEVELOPMENT ALTERNATIVE	**0**	**$0**	**18**	**$1,998**	**18**	**$1,998**	**$111**
Task 7.1 - Alternatives Refinement	0	$0	0	$0	0	$0	$0
Task 7.2 - Preferred Alternative Renderings	0	$0	0	$0	0	$0	$0
Task 7.3 - Preferred Alternative Meetings	0	$0	0	$0	0	$0	$0
Task 7.4 - Draft Deliverables	0	$0	18	$1,998	18	$1,998	$111

EXHIBIT A - CONSULTANT'S COMPENSATION PROPOSAL
TABLE C-5
BREAKDOWN OF NOT TO EXCEED PROFESSIONAL FEES
Wonderstruct (DBE)

Wonderstruct (DBE)	Principal		Senior QC Reviewer		TOTAL		
Rate ($/Hour):	$126		$111		labor hours	Cost	Avg. Hourly Rate
	hours	Cost	hours	Cost			
TASK 8: IMPLEMENTATION PLAN FOR FUTURE IMPROVEMENTS AND NEW CAPITAL PROJECTS	**0**	**$0**	**18**	**$1,998**	**18**	**$1,998**	**$111**
Task 8.1 - Business Case and Scope Framework for Digital Twin Capital Investment	0	$0	0	$0	0	$0	$0
Task 8.2 - Short-, Intermediate-, and Long-Term Capital Projects and Implementation Schedule	0	$0	0	$0	0	$0	$0
Task 8.3 - Rough Order of Magnitude Cost Estimates	0	$0	0	$0	0	$0	$0
Task 8.4 - Funding Source Strategies	0	$0	0	$0	0	$0	$0
Task 8.5 - Financial Analysis Support	0	$0	0	$0	0	$0	$0
Task 8.6 - Capital Projects Implementation Schedule Update	0	$0	0	$0	0	$0	$0
Task 8.7 - Capital Projects and Implementation Plan Meetings	0	$0	0	$0	0	$0	$0
Task 8.8 - Draft Capital Projects and Implementation Plan Working Paper	0	$0	18	$1,998	18	$1,998	$111
TASK 9: ENVIRONMENTAL OVERVIEW	**0**	**$0**	**18**	**$1,998**	**18**	**$1,998**	**$111**
Task 9.1 - Outline of National Environmental Policy Act (NEPA) Requirements	0	$0	0	$0	0	$0	$0
Task 9.2 - Other Environmental Considerations	0	$0	0	$0	0	$0	$0
Task 9.3 - Environmental Overview Meetings	0	$0	0	$0	0	$0	$0
Task 9.4 - Draft Environmental Overview Working Paper	0	$0	18	$1,998	18	$1,998	$111
TASK 10: SUSTAINABILITY STRATEGY	**0**	**$0**	**18**	**$1,998**	**18**	**$1,998**	**$111**
Task 10.1 - Sustainability Initiatives	0	$0	0	$0	0	$0	$0
Task 10.2 - Sustainability Strategy Meetings	0	$0	0	$0	0	$0	$0
Task 10.3 - Draft Sustainability Strategy Working Paper	0	$0	18	$1,998	18	$1,998	$111

EXHIBIT A - CONSULTANT'S COMPENSATION PROPOSAL
TABLE C-5
BREAKDOWN OF NOT TO EXCEED PROFESSIONAL FEES
Wonderstruct (DBE)

Wonderstruct (DBE)	Principal		Senior QC Reviewer		TOTAL		
Rate ($/Hour):	$126		$111				
	hours	Cost	hours	Cost	labor hours	Cost	Avg. Hourly Rate
TASK 11: PHOTOGRAMMETRY AND FAA AIRPORTS-GIS	0	$0	0	$0	0	$0	$0
TASK 12: AIRPORT LAYOUT PLAN	0	$0	0	$0	0	$0	$0
TASK 13: EXHIBIT A' COORDINATION	0	$0	0	$0	0	$0	$0
TASK 14: STAKEHOLDER ENGAGEMENT	0	$0	0	$0	0	$0	$0
TASK 15: FINAL DOCUMENTATION	15	$1,890	130	$14,430	145	$16,320	$113
Task 15.1 - Draft Technical Report	15	$1,890	80	$8,880	95	$10,770	$113
Task 15.2 - Final Technical Report	0	$0	30	$3,330	30	$3,330	$111
Task 15.3 - Executive Summary Brochure	0	$0	20	$2,220	20	$2,220	$111
Task 15.4 - Executive Summary Presentation	0	$0	0	$0	0	$0	$0
Task 15.5 - MPU-2023 Strategic Plan Alignment Matrix	0	$0	0	$0	0	$0	$0
TASK 16: MASTER PLAN VIDEO	0	$0	0	$0	0	$0	$0
TOTAL NOT TO EXCEED PROFESSIONAL FEES:	15	$1,890	346	$38,406	361	$40,296.00	$112

EXHIBIT A - CONSULTANT'S COMPENSATION PROPOSAL
TABLE C-6
BREAKDOWN OF NOT TO EXCEED REIMBURSABLE EXPENSES

EXPENSES:	QTY	UNIT PRICE	AMOUNT
TASK 11: PHOTOGRAMMETRY AND FAA AIRPORTS-GIS			**$ 22,285.00**
Martinez Geospatial (DBE)			
Keystone Aerial Surveys, Inc: Aerial Survey Flight Mission	1	$ 22,285.00	$ 22,285.00
TASK 12: AIRPORT LAYOUT PLAN			**$ 12,544.00**
Ricondo & Associates, Inc.			
Triangle Reprographics: Preliminary Draft ALP Drawing Sets for hard copy review (36"x48", AEC staple bind, 32 sheets per set)	5	$ 448.00	$ 2,240.00
Triangle Reprographics: Final Draft ALP Drawing Sets for hard copy review (36"x48", AEC staple bind, 32 sheets per set)	14	$ 448.00	$ 6,272.00
Triangle Reprographics: Final ALP Drawing Sets (36"x48", AEC staple bind, 32 sheets per set)	9	$ 448.00	$ 4,032.00
TASK 14: STAKEHOLDER ENGAGEMENT			**$ 4,716.00**
Ricondo & Associates, Inc.			
Triangle Reprographics: Presentation Boards (35.5" x 47.5" White Gatorboard, 3/16" thickness, single-sided)	36	$ 118.50	$ 4,266.00
Triangle Reprographics: Informational Handouts/Brochures (8.5"x11", double-sided, gloss)	300	$ 1.50	$ 450.00
TASK 15: FINAL DOCUMENTATION			**$ 12,670.00**
Graphic Support Services (DBE)			
Stock Photo Credits (18 credits in bulk)	1	$ 170.00	$ 170.00
Best Imaging: Executive Summary Booklets (8.5"x11" hard cover booklets, 2 test prints, shipping)	100	$ 125.00	$ 12,500.00
Ricondo & Associates, Inc. SUBTOTAL			**$ 17,260.00**
Graphic Support Services SUBTOTAL			**$ 12,670.00**
Martinez Geospatial SUBTOTAL			**$ 22,285.00**
GRAND TOTAL			**$ 52,215.00**

EXHIBIT A - CONSULTANT'S COMPENSATION PROPOSAL
TABLES C-7b and C-7c
PARTICIPATION SCHEDULES

TABLE C-7b MWBE PARTICIPATION SCHEDULE

NAME OF SUBCONSULTANT	ADDRESS	MWBE CLASSIFICATION	PROPOSED SCOPE OF SERVICES	FEE	PROPOSED PARTICIPATION
Ricondo & Associates, Inc.		N/A	Prime Consultant, Planning Services, QA/QC	$3,706,967.00	N/A
Carolyn Binder, CPA, LLC (DBE)		DBE	Project Control	$38,610.00	0.8%
Environmental Science Associates		N/A	Environmental Services	$60,104.00	N/A
Graphic Support Services (DBE)		DBE	Graphic Design Services	$35,960.00	0.8%
Illustrate My Design (DBE)		DBE	Illustrative Renderings, Multi-Media Video	$141,500.00	3.0%
KMI International (LDB)		LDB	Cost Estimating	$248,200.00	N/A
Martinez Geospatial (DBE)		DBE	Surveying	$255,240.00	5.4%
Quest Corporation of America, Inc. (DBE)		DBE	Stakeholder/Public Relations	$220,394.00	4.6%
Wonderstruct (DBE)		DBE	Technical and Editorial Services	$40,296.00	0.8%
TOTAL PROPOSED PARTICIPATION				**$4,747,271.00**	**15.4%**

TABLE C-7c LDB PARTICIPATION SCHEDULE

NAME OF FIRM	ADDRESS	LDB CLASSIFICATION	PROPOSED SCOPE OF SERVICES	FEE	PROPOSED PARTICIPATION
Ricondo & Associates, Inc.		N/A	Prime Consultant, Planning Services, QA/QC	$3,706,967.00	N/A
Carolyn Binder, CPA, LLC (DBE)		DBE	Project Control	$38,610.00	N/A
Environmental Science Associates		N/A	Environmental Services	$60,104.00	N/A
Graphic Support Services (DBE)		DBE	Graphic Design Services	$35,960.00	N/A
Illustrate My Design (DBE)		DBE	Illustrative Renderings, Multi-Media Video	$141,500.00	N/A
KMI International (LDB)		LDB	Cost Estimating	$248,200.00	5.2%
Martinez Geospatial (DBE)		DBE	Surveying	$255,240.00	N/A
Quest Corporation of America, Inc. (DBE)		DBE	Stakeholder/Public Relations	$220,394.00	N/A
Wonderstruct (DBE)		DBE	Technical and Editorial Services	$40,296.00	N/A
TOTAL PROPOSED PARTICIPATION				**$4,747,271.00**	**5.2%**

EXHIBIT A - CONSULTANT'S COMPENSATION PROPOSAL
TABLE C-9
CONTRACT HOURLY RATES

All amounts invoiced by the Consultant as Reimbursable Fees shall be calculated on the basis of the actual number of hours of services rendered under this Agreement by each of the positions defined and by the new positions as identified below, multiplied by the contract hourly rates shown below.

FIRM	POSITION	CONTRACT HOURLY RATE
Ricondo & Associates, Inc.	Senior Officer with Travel Premium	$ 385.00
Ricondo & Associates, Inc.	Senior Officer	$ 350.00
Ricondo & Associates, Inc.	Officer with Travel Premium	$ 375.00
Ricondo & Associates, Inc.	Officer	$ 340.00
Ricondo & Associates, Inc.	Senior Director with Travel Premium	$ 330.00
Ricondo & Associates, Inc.	Senior Director	$ 295.00
Ricondo & Associates, Inc.	Director with Travel Premium	$ 274.00
Ricondo & Associates, Inc.	Director	$ 239.00
Ricondo & Associates, Inc.	Manager with Travel Premium	$ 215.00
Ricondo & Associates, Inc.	Manager	$ 180.00
Ricondo & Associates, Inc.	Senior Consultant	$ 139.00
Ricondo & Associates, Inc.	Technical Editor	$ 138.00
Ricondo & Associates, Inc.	Senior Graphic Designer	$ 134.00
Ricondo & Associates, Inc.	Graphic Designer	$ 97.00
Ricondo & Associates, Inc.	Consultant	$ 93.00
Ricondo & Associates, Inc.	Technical Specialist	$ 66.00
Carolyn Binder, CPA, LLC (DBE)	Senior Consultant	$ 117.00
Environmental Science Associates	Senior Principal Consultant	$ 296.00
Environmental Science Associates	Principal Consultant 6	$ 265.00
Environmental Science Associates	Principal Consultant 4	$ 242.00
Environmental Science Associates	Managing Consultant 3	$ 198.00
Environmental Science Associates	Senior Consultant 4	$ 153.00
Environmental Science Associates	Senior Consultant 3	$ 135.00
Environmental Science Associates	Associate Consultant 3	$ 129.00
Environmental Science Associates	Senior Publciations Specialist	$ 125.00
Environmental Science Associates	Publications Specialist	$ 123.00
Graphic Support Services (DBE)	Senior Graphic Designer	$ 124.00
Illustrate My Design (DBE)	Principal	$ 215.00
Illustrate My Design (DBE)	Senior Consultant	$ 195.00
Illustrate My Design (DBE)	Consultant	$ 125.00
KMI International (LDB)	Sr. Estimator	$ 208.00
KMI International (LDB)	Estimator / Scheduler II	$ 157.00
KMI International (LDB)	Estimator / Scheduler I	$ 106.00
Martinez Geospatial (DBE)	Project Manager	$ 187.00
Martinez Geospatial (DBE)	Licensed Professional Surveyor	$ 142.00
Martinez Geospatial (DBE)	Senior Photogrammetrist	$ 106.00
Martinez Geospatial (DBE)	CADD Technician	$ 94.00
Martinez Geospatial (DBE)	Survey Field Technician	$ 91.00
Martinez Geospatial (DBE)	Geospatial Supervisor	$ 80.00
Martinez Geospatial (DBE)	Airspace Technician	$ 80.00
Martinez Geospatial (DBE)	Geospatial Techician II	$ 77.00
Martinez Geospatial (DBE)	Geospatial Technician I	$ 71.00
Quest Corporation of America, Inc. (DBE)	Sr. Community Outreach Specialist	$ 142.00
Quest Corporation of America, Inc. (DBE)	Project Manager	$ 124.00
Quest Corporation of America, Inc. (DBE)	Community Outreach Specialist	$ 106.00
Quest Corporation of America, Inc. (DBE)	Data Analyst	$ 113.00
Quest Corporation of America, Inc. (DBE)	Tech Support	$ 77.00
Quest Corporation of America, Inc. (DBE)	Multimedia PM	$ 124.00
Quest Corporation of America, Inc. (DBE)	Sr. Multimedia AV Technician	$ 95.00
Wonderstruct (DBE)	Principal	$ 126.00
Wonderstruct (DBE)	Senior QC Reviewer	$ 111.00

APPENDIX A SUBCONSULTANT PROPOSALS

CAROLYN BINDER, CPA, LLC

Scope of Services

Greater Orlando Aviation Authority

July 23, 2024

Carolyn Binder, CPA, LLC's scope of work for the Greater Orlando Aviation Authority.

Project Control Support Activities

Carolyn Binder, LLC will be responsible for project control support services including, but not limited to,

- Reviewing billing/invoices/task authorizations/project budgets for clerical accuracy
- Tracking labor effort
- Creating progress reports internally and for GOAA management
- Coordinating with other subconsultants, Ricondo, and Aviation Authority staff for all related invoicing matters
- Providing status updates, as needed

Engagement Administration

Carolyn Binder, CPA acknowledges that during the engagement she will have access to and become acquainted with various trade secrets, innovations, processes, information, records, and specifications owned or licensed by GOAA and Ricondo. Carolyn Binder, CPA agrees that she will not disclose any of the aforesaid, directly or indirectly, or use any of them in any manner, either during the term of this Agreement or at any time thereafter, except as required in the course of this engagement with the Airport.

Proposal Price

Our hourly rate to provide these services is:

Senior Consultant: $117/hour, with an anticipated budget of 330 hours = NTE $38,610.

Sincerely,



Carolyn Binder
Carolyn Binder, CPA, LLC
9300 Conroy Windermere Road #2093
Windermere, Florida 34786
407-319-0301
www.bindercpafirm.com

The objective of these tasks are to provide a preliminary review of potential environmental features and resources in the immediate Airport vicinity that could impact or influence the location, configuration, or viability of the Preferred Alternative. The following tasks comprise the qualitative assessment that is appropriate for master planning per FAA guidelines.

1. INVENTORY

1.1 EXISTING ENVIRONMENTAL CONDITIONS

The Ricondo Team will assemble existing documentation and mapping of environmental resources at MCO and the surrounding environment, as well as provide an initial assessment of their influence on Airport development. The environmental conditions inventory of the Airport environs will include data collection necessary to identify current environmental features on and directly adjacent to MCO that should be considered to impact or influence the location, configuration, or viability of development recommended in the Master Plan. The Ricondo Team will review the Airport environs for environmental resources identified in FAA Order 1050.1F, *Environmental Impacts: Policies and Procedures*, that may be present at or within the vicinity of the Airport. Features to be identified may include water resources (e.g., streams, wetlands, floodplains, and coastal zones), historic or cultural resources, natural communities and vegetative associations, threatened and endangered species, and other features or groups of features that may influence the development and operation of Airport improvement projects.

To the extent possible, available data from previous studies, and information easily accessible from prior MCO studies, GOAA mapping, agencies, and other public sources, will be relied upon as the basis for this effort. This task does not include field visits or surveys for data collection. This task also does not include air quality emissions or noise modeling. The Ricondo Team will review recent environmental studies conducted at MCO made available by GOAA such as prior National Environmental Policy Act (NEPA) documents, other environmental documentation such as the Airport's Wildlife Hazard Management Plan, and natural resource mapping maintained by GOAA and/or its contractors. As an example, the Ricondo Team will coordinate with GOAA's environmental contractor responsible for maintaining wetland mapping and permitting status and/or receive wetland mapping from GOAA.

The existing environmental conditions will include an exhibit of mapped resources for consideration during the development of Master Plan Update alternatives.

2. ENVIRONMENTAL OVERVIEW

Prior to implementation of the recommended Master Plan Preferred Alternative projects, the potential environmental effects of each project should be reviewed to identify issues and studies that may be needed to support future project review under NEPA. Therefore, the environmental overview summarizes the environmental review considerations related to the set of recommended development projects identified in the Master Plan to support the development of an environmental processing strategy for Master Plan Preferred Alternative projects. The environmental overview will include the following:

- overview of FAA approval authority considerations (Section 743 of FAA Reauthorization Act of 2024)
- overview of NEPA processing
- review of recommended Master Plan Preferred Alternative projects for potential eligibility for categorical exclusion under NEPA
- review of environmental considerations for recommended Master Plan preferred alternative projects based on environmental resources identified in the environmental inventory (e.g., air quality, biological resources, climate,

farmlands, Section 4[f] resources, hazardous materials, cultural resources, land use, natural resources and energy supply, noise and compatible land use, socioeconomics, visual effects, and water resources)

- discussion of NEPA processing strategy

The environmental overview will not include detailed analyses of environmental impacts or assess whether the impacts would be considered significant under NEPA. Rather, it provides a guide to support future environmental review of Master Plan Preferred Alternative projects.

2.1 NATIONAL ENVIRONMENTAL POLICY ACT STRATEGY WORKSHOP

The Ricondo Team will convene a NEPA strategy workshop to review the environmental overview findings with GOAA staff and to refine assumptions for inclusion in the Master Plan documentation. A 2-hour workshop with key GOAA planning staff and Ricondo Team members is assumed.

In addition to the workshop, the Ricondo Team will participate in up to two coordination meetings with GOAA staff to review the materials to be presented at the workshop. For budgeting purposes, it has been assumed that these meetings would last 2 hours and be attended by three Ricondo Team members. These meetings will include the following:

- review of preliminary draft workshop materials with GOAA key planning staff
- review of draft workshop materials with GOAA key planning staff

2.2 OTHER ENVIRONMENTAL CONSIDERATIONS

The Ricondo Team will identify non-NEPA environmental considerations related to federal, state and local permitting and approvals. This will address the current regulatory environment as well as the implications of changes such as the reversal of Section 404 permitting delegation from the State of Florida to the Department of the Army, Corps of Engineers and the revisions to state water quality guidelines and stormwater permitting requirements. This effort will primarily focus on issues that have the potential to delay project implementation or affect the physical approach to a project in a meaningful way.

2.3 ENVIRONMENTAL OVERVIEW MEETINGS

The Ricondo Team will participate in up to two coordination meetings with GOAA staff to discuss various aspects of the Environmental Overview. For budgeting purposes, it has been assumed that these meetings would last 2 hours and be attended by up to three Ricondo Team members. These meetings will include the following:

2.4 ENVIRONMENTAL OVERVIEW WORKING PAPER

A preliminary draft version of the Environmental Overview Working Paper that describes the findings of the environmental analysis for the Preferred Alternative, which includes maps, diagrams, tables, and text, will be submitted to the GOAA for review and comment. This does not include modeling of air quality or greenhouse gas emissions or noise The review and comment process for the Environmental Overview Working Paper will incorporate two revision rounds: (1) preliminary draft for GOAA review and comment and (2) final draft for GOAA review and comment. The second round of comments/revisions will be incorporated into the draft Master Plan chapter and will remain until final comments are solicited at submission of the draft Master Plan document.

Mike Arnold

07/30/2024

Mike Arnold
Senior Vice President, Aviation Market Leader
ESA | Environmental Science Associates

July 26, 2024

Dear sir or madam,

GSS Creative is pleased to participate on the Ricondo team with graphic support and production for the Orlando International Airport Master Plan.

GSS Creative would provide the following graphic support as incorporated in the Ricondo scope of work for the Stakeholder Engagement and Documentation tasks including:

- Templates and formatting for digital presentations
- Handouts and meeting materials
- Development for presentation boards
- Technical presentation and Executive Summary brochure
- A stock photo budget of $**170** will be used as-needed for the tasks above
- A print production budget of $12,500 for 100 hard sleeve covers, 100 of 8.5" x 11" spiral bound booklets, 2 test print runs and shipping.

The budget for the proposed consulting services listed above is $48,630.

GSS Creative has been providing graphics support similar to those proposed since 1990, including several years working with Ricondo on graphics for the Greater Orlando Airport Authority and are looking to working with the team on the Master Plan for Orlando International Airport.

Respectfully,

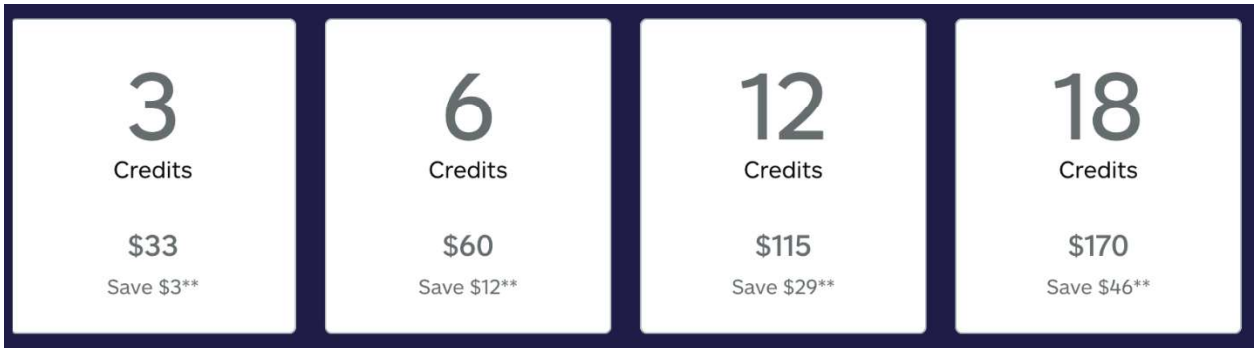
Michelle Piette
President
Graphics Support Services, Inc.

20 N. Clark Street Suite 1500 Chicago, IL 60602 312 553-2111 TEL 312 553-2113 FAX gsscreative.net

GSS CREATIVE

Stock Image Estimate

https://www.istockphoto.com/plans-and-pricing





Best Imaging Solutions
55 E Monroe St., Lower Level,Chicago, IL 60603

Ordered By: Michelle Piette
Project Name:

Project No:

Order Date:

ATTN: Michelle Piette
Graphic Support Services
20 N. Clark St.
Suite 1500
Chicago, IL 60602

Item #	Product	Quantity	Subtotal
1	Digital Color Prints	100	$125.00

Description: Digital Color Print

Finishing: Double o-wire, silver on left. Assemble as book.

- 11 in x 7 in Double Sided, 25 pages, 100# Matte Text, 130# Matte Cover

Item #	Product	Quantity
1.A	Cutting	

Description: Guillotine Cut

Item #	Product	Quantity
1.B	Pre Press	

Description: Digital Color Print Setup

Item #	Product	Quantity
1.C	Bindery	

Description: Double O Binding

GBC WireBind 1/2in

TOTAL ESTIMATE

$12,500.00

ILLUSTRATE MY DESIGN LLC
1775 TYSONS BLVD, 5th FLOOR
MCLEAN, VA 22102
(703)548-2929
ILLUSTRATEMYDESIGN.COM

3D RENDERINGS

ANIMATION

VIRTUAL DESIGN + CONSTRUCTION

VR/AR

GRAPHIC DESIGN

Orlando International Airport
Master Plan

Ricondo & Associates
Attn. Aaron Lofurno

Per our discussion of the upcoming scope of work for Orlando International Airport, Master Plan update please find our detailed description of visualization efforts of 3D Renderings Stills, and Master Plan Video.

We will start with information provided by client, and leverage the previous work done for the Rental Car Facility, and Terminal C, to create various 3D Rendering stills to illustrate the proposed design by client, and a Video to update the Master Plan for the airport.

The areas to be illustrated include:

1. North Terminals
2. South Terminals
3. Other area TBD

Deliverables:

3D Renderings: We propose to create Exterior Aerial Views of the Whole Airport campus, as well as closer views at the areas to be illustrated.

1. General Aerial view to capture the entire Airport
2. North Terminal Area
3. South Terminal Area
4. Other areas TBD

Master Plan Video: We propose to create a short Video to present the Master Plan. It will include:

- Footage of Existing conditions
- 3D Animation to illustrate proposed Master Plan
- Video will have a voice over based on script provided by client.

Project Timeline:
The project is anticipated to start in the second half of 2025, with a completion date within 4 months of Notice to Proceed.

ILLUSTRATE MY DESIGN LLC
1775 TYSONS BLVD, 5th FLOOR
MCLEAN, VA 22102
(703)548-2929
ILLUSTRATEMYDESIGN.COM

3D RENDERINGS

ANIMATION

VIRTUAL DESIGN
+ CONSTRUCTION

VR/AR

GRAPHIC
DESIGN

Exclusions

This scope does not include:

1. Efforts requiring more than the estimated hours
2. Any additional efforts for edits, changes, enhancements, or revisions are outside this scope of work.
3. The fees associated with this estimate do not include any applicable Rush Fees for condensed project timelines.

Thank you for your consideration. We look forward to working with you again at this airport, and with your team.



Daniel Zeballos, CCO
703-548-2929 ext. 102
dzeballos@illustratemydes



PROPOSAL

July 30, 2024

Ricondo & Associates, Inc.
421 King Street, Suite 400
Alexandria, VA 22314

RE: Construction Cost Estimating Services
GOAA, MCO Master Plan

Attn: Foo Pham

Task Description
KMI International (KMI) is pleased to provide this proposal for the estimating services on the GOAA MCO Master Plan, Orlando, Florida. This added service project to be estimated or evaluated are as follows:

Rough Order of Magnitude Estimates will be provided for the following design deliverable:

- Task 6.4 - Initial Screening of Alternatives (Cost Guidance/Value Engineering)
  - Assumed 20 Projects
- Task 8.3 - Rough Order of Magnitude Cost Estimates Preferred Alternatives
  - Assumed 35 Projects

Scope of Work
We will provide applicable Rough Order of Magnitude Estimates for the above referenced project. The estimates will be based on the findings of the MCO Master Planning efforts provided to KMI by Ricondo & Associates, Inc.

Proposed Fees:
We propose to provide the Construction Cost Estimating Services for the above scope at a **Not to Exceed Value of $248,200.00.** This Fee does not include allowance for site visits during the estimating process. See GOAA-MCO_Master_Plan-Fee_Tables-KMI for hours and rates for each Task.

If you have any questions, please do not hesitate to contact the undersigned. We look forward to working with you on this exciting program and thank you for this opportunity.

Sincerely,
Christopher Mixon
Christopher Mixon
Director of Estimating
KMI International

MARTINEZ GEOSPATIAL

A GEOSPATIAL SERVICE PROVIDER

Scope and Fee Proposal

Survey, Photogrammetry & Airports-GIS Services

Orlando International Airport (MCO)

07/25/2024

2915 Waters Road Suite 100 Eagan, Minnesota 55121

Tel: 651-686-8424 • www.mtzgeo.com

PROJECT SUMMARY

CLIENT	Ricondo
CLIENT CONTACT	Foo Pham
CLIENT ADDRESS	3504 Lake Lynda Drive Suite 165 Orlando, FL 32817
PROJECT LOCATION	Orlando International Airport (MCO) Orlando, Florida

Martinez Geospatial, Inc. (MTZ) will provide **RICONDO** with Photogrammetry & Airports-GIS services in support of a **Master Plan/Airport Layout Plan** at **Orlando International Airport (MCO).**

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."**

MTZ will make maximum use of existing data within the ADIP Portal for MCO, including Obstacle Data with FAA-assigned Identifiers.

PROJECT SPECIFICATIONS

STATE	FLORIDA
COUNTY	ORANGE
PROJECT TYPE	AVIATION (AIRPORTS-GIS INCLUDED)
COORDINATE SYSTEM	FLORIDA STATE PLANE – EAST ZONE
HORIZONTAL DATUM	NAD83
VERTICAL DATUM	NAVD88 (GEOID18)
FIELD-SURVEY PROVIDED BY	MARTINEZ GEOSPATIAL, 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.
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 AGIS "Statement of Work" for the project through the FAA Orlando ADO and FAA Airports-GIS. MTZ will assemble, submit, and gain approval of the Imagery/Remote Sensing Plan, Survey Quality Control Plan, and 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.

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 one "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. 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)

There are currently one PACS monument and two SACS monuments 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	*MCO D*	*AD9143*	*NAD83(2011)*	*NAVD88*	*GEOID18*
SACS	*MCO C 1989*	*AA9569*	*NAD83(2011)*	*NAVD88*	*GEOID18*
SACS	*USCE DISK*	*AA9807*	*NAD83(2011)*	*NAVD88*	*GEOID18*

Survey Imagery Photo Control (Field Survey)

Photo-identifiable control points and/or artificial targets 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 48 imagery control points will be required. Per FAA requirements, in addition to the imagery control points, an additional **6** 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. Two sets 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)

In addition to the ortho-rectified imagery of AREA C, MTZ will prepare a non-ortho-rectified mosaic image of the full extents of AREA B in support of the preparation of ALP airspace sheets (see attached exhibit).

Runway Surveys (Field Survey)

Field Surveyors will accomplish survey of all runways at MCO (17L/35R, 17R/25L, 18L/36R, & 18R/36L); 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 and 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)

Surveyors will accomplish field-survey of visual NAVAIDs & meteorological equipment serving the MCO 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:

Airport Rotating Beacon	*17L PAPI*	*35R PAPI*
17L ALSF2	*35R ALSF2*	*17R PAPI*
35L PAPI	*17R ALSF2*	*35L ALSF2*
18L PAPI	*36R PAPI*	*36R ALSF2*
18R PAPI	*36L PAPI*	*18R MALSR*
36L REILs	*17L Localizer*	*17L DME*
17L Glideslope	*35R Localizer*	*35R DME*
35R Glideslope	*17R Localizer*	*17R DME*
17R Glideslope	*35L Localizer*	*35R DME*
35R Glideslope	*36R Localizer*	*36R DME*
36R Glideslope	*18R Localizer*	*18R DME*
18R Glideslope	*Airport Surveillance Radar*	*Windsocks*
ASOS		

Airport Airspace Analysis/Obstruction Surveys

18B/AGIS

An Airport Airspace Analysis will be performed in accordance with AC 150/5300-18B. This task will be performed in order to comply with the requirements of the FAA Airports-GIS Program for projects involving Airport Layout Plans. All available existing obstacle data for MCO will be obtained & downloaded from ADIP; existing obstacle data (relevant to the AGIS Airspace Analysis) will be validated or updated as necessary and incorporated into this project. Existing obstacle data will be reported back to FAA through ADIP, identifiable by assigned FAA-Obstacle-ID. The Airport Airspace Analysis will meet the following specifications:

RUNWAY	AGIS ANALYSIS TYPE
17L/35R	Runways-With-Vertical-Guidance
17R/35L	Runways-With-Vertical-Guidance
18L/36R	Runways-With-Vertical-Guidance
18R/36L	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
17L/35R	Precision-Instrument-Runway (PIR)
35R	Precision-Instrument-Runway (PIR)
17R	Precision-Instrument-Runway (PIR)
35L	Precision-Instrument-Runway (PIR)
18L	Non-Precision-Instrument-C (NPI-C)
36R	Precision-Instrument-Runway (PIR)
18R	Precision-Instrument-Runway (PIR)
36L	Non-Precision-Instrument-C (NPI-C)

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
17L	OCS 5 *(< 3/4sm Visibility Minimums)*
17L	OCS 6 *(Vertical Guidance Surface)*
17L	OCS 7 *(Departure Surface)*
35R	OCS 5 *(< 3/4sm Visibility Minimums)*
35R	OCS 6 *(Vertical Guidance Surface)*
35R	OCS 7 *(Departure Surface)*
17R	OCS 5 *(< 3/4sm Visibility Minimums)*
17R	OCS 6 *(Vertical Guidance Surface)*
17R	OCS 7 *(Departure Surface)*
35L	OCS 5 *(< 3/4sm Visibility Minimums)*
35L	OCS 6 *(Vertical Guidance Surface)*
35L	OCS 7 *(Departure Surface)*
18L	OCS 5 *(≥ 3/4sm Visibility Minimums)*
18L	OCS 6 *(Vertical Guidance Surface)*
18L	OCS 7 *(Departure Surface)*
36R	OCS 5 *(< 3/4sm Visibility Minimums)*
36R	OCS 6 *(Vertical Guidance Surface)*
36R	OCS 7 *(Departure Surface)*

18R	OCS 5 *(< 3/4sm Visibility Minimums)*
18R	OCS 6 *(Vertical Guidance Surface)*
18R	OCS 7 *(Departure Surface)*
36L	OCS 5 *(≥ 3/4sm Visibility Minimums)*
36L	OCS 6 *(Vertical Guidance Surface)*
36L	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 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, 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: 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: • 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**.

Planimetric Features to be mapped within AREA A will include (but are not limited to):

- Building Outlines
- Airfield Pavement (Aprons, Taxiways, Runways)
- Airfield Paint Markings
- Airfield Signs
- Airfield Lights
- Roadways/Railways/Bridges
- Parking Lots
- Sidewalks
- Towers/Antennas
- Utilities (Above-Ground & Identifiable in Imagery)

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)

The CAD products defined above will be delivered directly to **RICONDO** for incorporation into ALP drawings.

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:

SAFETY-CRITICAL

Airspace

AC-18B Feature	AC-18B Section
Obstacle	5.5.2
Obstruction Area (if applicable)	5.5.3
Obstruction ID Surface	5.5.4

Runway

AC-18B Feature	AC-18B Section
Runway End	5.4.26
Runway Profile Points	5.8.6
Centerline Perpendicular Points	5.8.3
Touchdown Zone Elevation	5.8.7
Airport Elevation	5.8.2

NAVAIDs

AC-18B Feature	AC-18B Section
Navigational Aids	All Applicable - Group 5.10

NON-SAFETY-CRITICAL

Planimetric

AC-18B Feature	AC-18B Section
Airfield	All Applicable - Group 5.4
Manmade Structures	All Applicable - Group 5.10
Surface Transportation	All Applicable - Group 5.13
Utilities	All Applicable – Group 5.14

Topographic

AC-18B Feature	AC-18B Section
Elevation Contour	5.8.10

Final GIS data will meet the following specifications**:**

GIS DATA-MODEL UTILIZED	FAA Airports-GIS (*AC 150/5300-18B, Chapter 5)*
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.

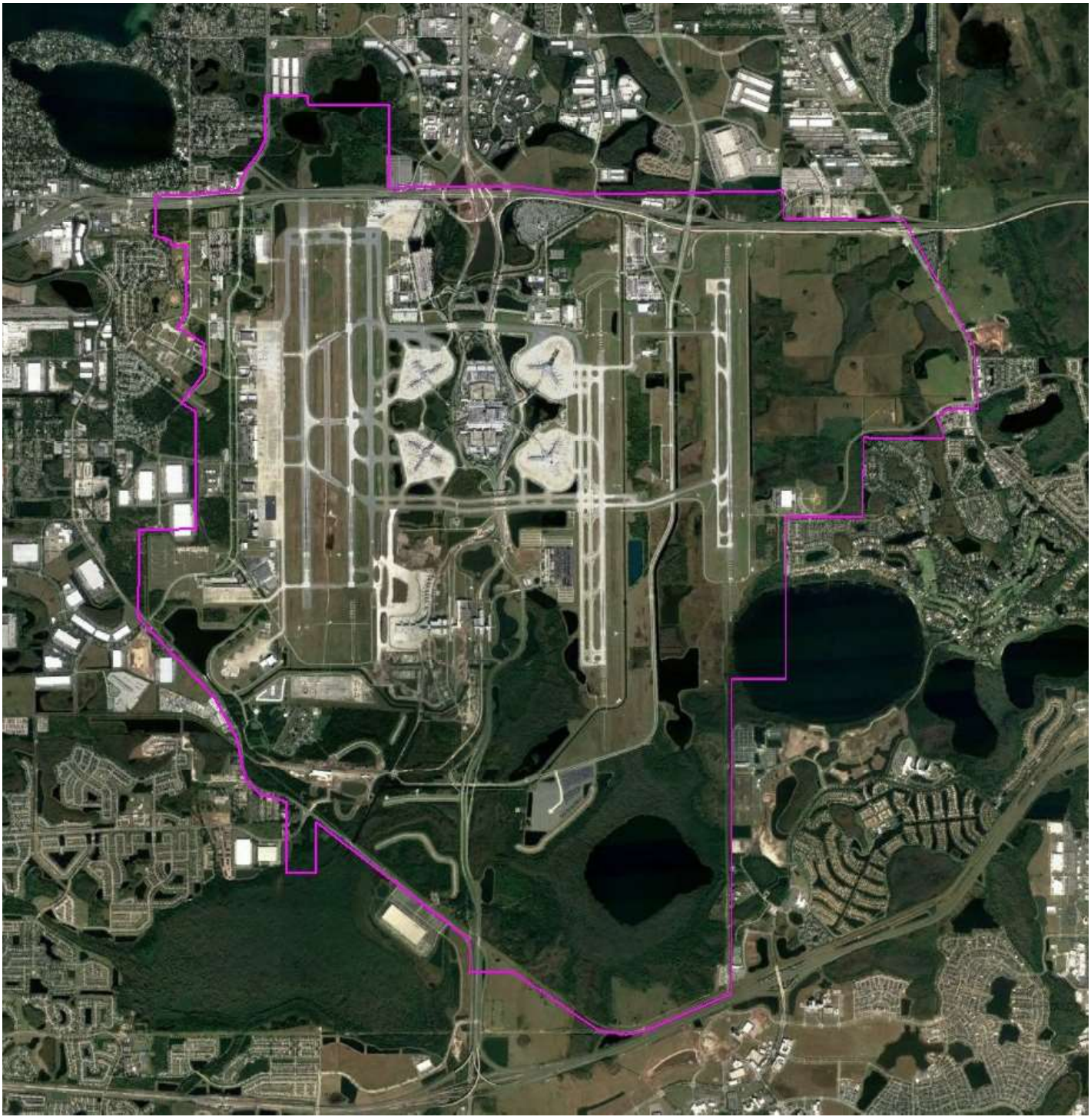
DELIVERABLE SUMMARY
1) Statement of Work Report (for FAA Airports-GIS approval)
2) Imagery/Remote Sensing Plan (for FAA Airports-GIS approval)
3) Survey Quality Control Plan (for FAA Airports-GIS approval)
4) Aerial Photography Acquisition Report (for FAA Airports-GIS approval)
5) Part 77 & Obstacle-Clearance-Surface Obstruction/Penetration Data
6) Airfield Base-map (Planimetric & Topographic Mapping Data)
7) Supplemental Obstacle Data
8) Digital Ortho Imagery of AREA C (0.50' Resolution)
9) Non-Ortho-Rectified Imagery Mosaic of AREA B
10) 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)
11) Final Report (for FAA Airports-GIS approval)

Ryan Flicek

Ryan Flicek
Vice President / Aviation Director

07/30/2024

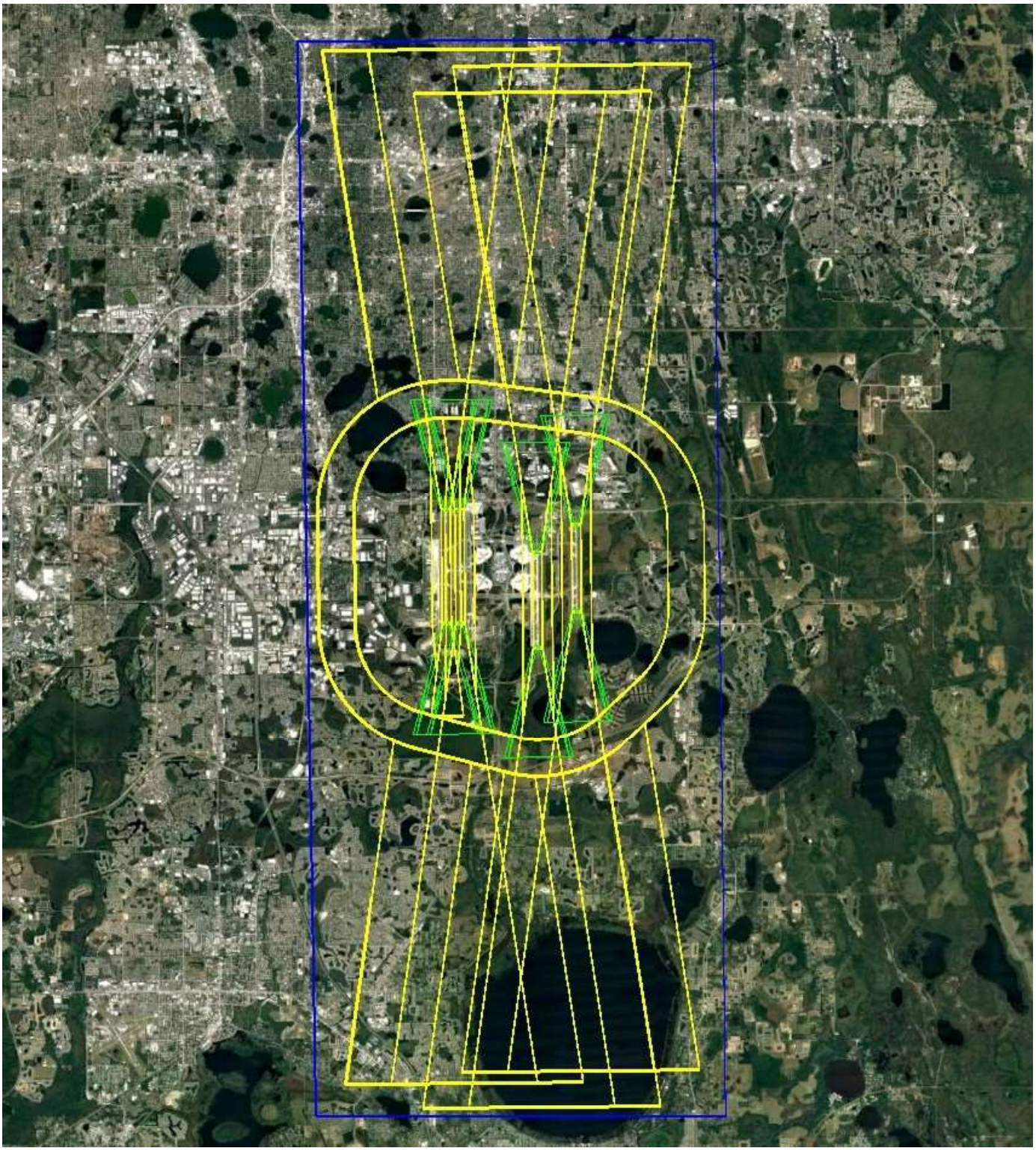
Area A - Planimetric & Topographic Mapping



Magenta Polygon - Planimetric & Topographic Mapping Limit

MTZ | Martinez Geospatial
2915 Waters Road Suite 100
Eagan, Minnesota 55121
Tel: 651.686.8424 Fax: 651.686.8389

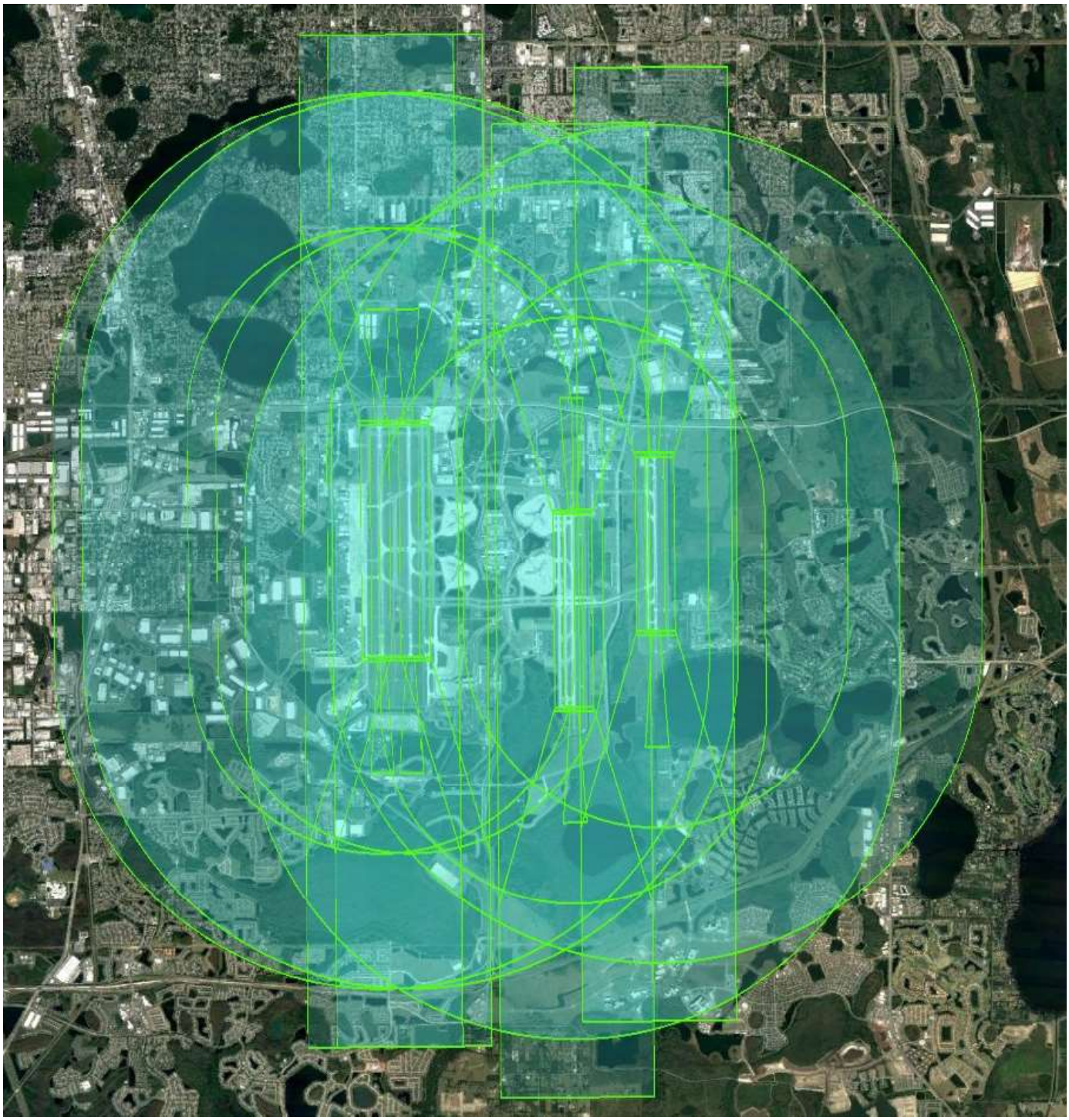
Area B - Part 77/OCS Airspace Analysis



Green Polygons - AC-13B 40:1 Departure Surfaces
Yellow Polygons - Part 77 Obstruction Identification Surfaces
Blue Limit - Non-Ortho-Rectified Imagery Mosaic Coverage

MTZ | Martinez Geospatial
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Eagan, Minnesota 55121
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Area C - Airports-GIS Airspace Analysis



Green Polygons - 18B/Airports-GIS Obstruction Identification Surfaces
Cyan Shaded Area - 0.50' GSD Ortho Imagery Coverage

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Eagan, Minnesota 55121
Tel: 651.686.8424 Fax: 651.686.8389

KEYSTONE

AERIAL SURVEYS, INC.

Northeast Philadelphia Airport • PO Box 21059 • Philadelphia, PA 19114
PHONE (215) 677-3119 • FAX (215) 464-2889

Quotation / Order form

All quotes are valid for 90 days.
Quotes after 90 days are subject to review and adjustments



TO: Ryan Flicek
MTZ | Martinez Geospatial
2915 Waters Road, Suite 100
Eagan, MN 55121
V: 651.842.2000
F: 651.686.8389

DATE: **7/25/2024**
QUOTED BY: John Schmitt

KAS REFERENCE #:

ITEM	*QUANTITY*	*DESCRIPTION*	*UNIT PRICE*	*AMOUNT*
		Provide New Aerial Survey of client's area using		
		Vexcel UltraCam UCFp Digital Sensor		
	Location:	MCO, FL		
	Details:	13 Flight lines and 955 digital images		$ 22,285.00
	GSD:	10 cm		
	Processing:	LvL03		
	Bands:	RGB		
	Bit depth:	8 bit		
	ABGPS:	Yes		
	IMU:	Yes		
		Delivery Items		
	1	Digital Imagery on hard drive(s)		
		EO's with Standard Deviations		
		Do not fly with significant surface winds.		
		Flight with surface winds > 15 kts should be avoided		
		TFW's to match EO's		
		TOTAL:		**$ 22,285.00**

If Keystone's product/services has an end use for an engineering or architectural services trade or business, performed in the United States by the taxpayer in the ordinary course of such trade or business with respect to the construction of real property in the United States. (IRS Code Section 199).
The location/description of the construction is as follows: _____

ORDER INFORMATION TO BE FILLED OUT BY THE CUSTOMER

If the above Quotation is acceptable, sign and return to Keystone via US Mail or Fax with the additional information filled out.
When contacting Keystone regarding this Quotation, please refer to our Reference number shown above.

Ship To: (If different from above)

Method of Shipment: *(Check One, Account # if Applicable)*
☐ *Federal Express*
Federal Express Number:
☐ *UPS*
UPS Number:
☐ *OTHER*

Method Of Payment: (Check One)
☐ *OA* ☐ *Mastercard*
☐ *COD* ☐ *Other*
☐ *Visa* ☐

Purchase Order Number:
Reference Number:

Account # *Exp. Date:* *Security Code:*

Cardholder:
Address of Cardholder:

Your Signature will give Keystone Aerial Surveys, Inc. the right to proceed.

Signature: _____ *Print Name:* _____

Terms and Conditions: Quotations do not include shipping/handling charges or sales tax which are additional fees if applicable.
If you are exempt from sales tax, please include a copy of your current year's sales tax exempt certificate with your signed quote.

Greater Orlando Aviation Authority MCO Master Plan Update
Quest Corporation of America Scope
July 30, 2024

NOTE: *The individual task numbers used in this scope are consistent with those defining the Stakeholder and Public Engagement efforts delineated in the full Master Plan Scope of Services.*

Quest Task 2.1- Tenant Survey

Objectives: Quest Corporation of America, in partnership with Ricondo, aims to effectively engage Orlando International Airport's tenants and subtenants in the master plan update process through comprehensive data collection and analysis. This involves crafting and distributing tailored surveys following the planned tenant stakeholder meetings. These efforts will provide critical insights into facility and infrastructure needs, supporting informed decision-making for the airport's future development.

Description: Quest will begin collecting surveys from Tenants and subtenants following each planned tenant stakeholder meeting (up to four) to determine their facility and infrastructure needs. Quest will work closely with Ricondo and GOAA to craft survey questions that target the desired data. Surveys will be distributed to tenants and subtenants electronically, with paper options available when needed. The collected data will be meticulously compiled and analyzed, presenting results through detailed charts and graphics in Excel format.

Deliverables:

- Design survey and creation of survey content.
- Management of e-survey platform.
- Design of traditional print survey and associated marketing collateral.
- Provide data compilation and statistical analysis and create charts and graphics to be provided in Excel Spreadsheet format, delivered within a predetermined schedule following the survey's completion.

Exclusions:

- Print items are not included.

Quest Task 2.2- Passenger Intercept Survey

Objectives: Quest will conduct intercept surveys with passengers to capture valuable insights on passenger experiences, preferences, and expectations, ensuring the master plan aligns with the needs and desires of the airport's diverse user base.

Description: The sample size goal for each survey is approximately 1,250 respondents over seven days. A Quest project manager will be on-site at all times during the survey period, and Quest will provide all survey team members. Ricondo will provide flight samples and targeted respondents for each flight. GOAA will assist with expediting the authorization process. Additionally, Quest will conduct regular briefings with Ricondo to update survey progress, address any challenges, and make necessary adjustments to the survey strategy.

Deliverables:

- Provide project manager and survey team with two (2) shifts and four (4) surveyors per shift.
- Coordinate as necessary with the airport security office to secure authorization for its team members to be admitted airside to complete the surveys.
- Design signage to be used during the surveys at gates and in the common area of the airport.
- Provide electronic tablets and QR codes for administering survey questions. Paper surveys will be available for use as necessary.

- ✈ Provide data compilation and statistical analysis, create charts and graphics to be provided in Excel Spreadsheet format, to be delivered within 14 days of completion of surveys.

Quest Task 6.1- Overall Development and Mobility of the Future Vision

Objective: The Consultant Team will conduct up to three (3) alternatives workshops and planning charettes with GOAA staff and other pertinent stakeholders identified by the Authority (outside of the Technical Advisory Committee and Public Workshops or Briefings). Quest will provide support to the team during the workshops.

Description: Quest will provide staff to assist in arranging the details for each workshop and ensuring the development of detailed minutes of the discussions, questions, recommendations, action items and follow-on tasks and responsibilities. Quest will work with GOAA public relations personnel to help them set up the logistics of holding the public meetings. GOAA will take the information on what will be covered by the Ricondo Master Plan Team and assist in setting up the meeting with the assistance of GOAA, creating the agenda, and facilitating the meeting. Quest will provide the draft minutes to the prime for their review and, upon approval, provide copies to the requisite representatives of the GOAA for their review and comment. Quest will be responsible for revising the minutes based on input from the project team members who attended the charrette and comments received from GOAA representatives. Quest will also review written briefing materials presented at each workshop and provide input to electronic versions of PowerPoint and other materials for proper grammar, punctuation, and sensitivity to known local concerns or issues. Workshops will be conducted at the offices of the GOAA or other locations to be established by GOAA.

Deliverables*:*

- ✈ Reviewed written briefing materials for use in the workshops as described above.
- ✈ Design for meeting collateral, including signage, presentation materials and PowerPoint.
- ✈ Quest will prepare detailed minutes of each workshop, summarizing key elements of the conducted presentations and key questions and participant comments. These action items and/or items requiring attention and summaries of consensus items were identified.

Quest Task 7.2- Preferred Alternative Renderings

Objective: Quest Corporation of America, in collaboration with Ricondo, aims to support the Orlando International Airport master plan by creating visual aids for the preferred development alternatives. This will involve developing detailed renderings visually representing the most viable and strategic development options, ensuring alignment with stakeholder expectations and project goals. Working with Ricondo, Quest will provide clear, understandable, and impactful visualizations that facilitate informed decision-making and public engagement.

Description: Quest will work closely with Ricondo and GOAA to gather all necessary data and feedback from initial stakeholder meetings. Quest will use this information to develop initial renderings of the preferred development alternatives, incorporating feedback from Ricondo and GOAA to ensure accuracy and relevance. These renderings will be refined through an iterative process, incorporating further stakeholder input and technical reviews. The final visualizations will be designed to communicate the benefits and impacts of each alternative, supporting a comprehensive understanding among all stakeholders. Quest will provide three (3) unique iterations of renderings.

Deliverables*:*

- ✈ Three (3) development alternative renderings based on preliminary data and feedback.
- ✈ Iterative refinement of renderings incorporating ongoing stakeholder input and technical reviews.
- ✈ Finalized high-quality visualizations of preferred development alternatives.
- ✈ Finalized digital files (.PDF) for all renderings generated.

Exclusions:

- ✈ Physical print iterations of the preferred alternative renderings.

Quest Task 14.1-Community Outreach and Stakeholder Engagement Plan

Objective: Quest creates a comprehensive Stakeholder Engagement Plan and Guide to ensure transparent, inclusive, and effective communication with GOAA and all of its stakeholders involved in the Orlando International Airport master plan update. This plan will outline strategies for engaging key stakeholders, including the public, governmental agencies, and relevant organizations, ensuring their input is effectively integrated into the master planning process. Quest will leverage its experience and expertise to provide clear guidance and actionable steps to facilitate meaningful stakeholder participation under Ricondo's direction.

Description: Quest will thoroughly assess the stakeholder landscape, identifying all key groups and their respective interests. Quest will use this information to develop tailored engagement strategies that address each stakeholder group's unique needs and preferences. The plan will include detailed procedures for organizing and conducting meetings, workshops, and feedback sessions. Quest will also create communication materials and tools to support ongoing engagement efforts, such as newsletters, website content, and social media updates. Throughout the process, Quest will collaborate closely with Ricondo to ensure alignment with overall project goals and provide expert recommendations on optimizing stakeholder interaction and feedback integration.

Deliverables:

- Comprehensive Stakeholder Engagement Plan document.
- Stakeholder identification and analysis report.
- Detailed strategies and procedures for stakeholder engagement.
- Communication materials and tools (e.g., newsletters, website content, internal content GOAA).
- Templates and guides for organizing and conducting stakeholder meetings and workshops.
- Feedback collection and integration protocols.
- Regular progress updates and reports for Ricondo.
- Final Stakeholder Engagement Guide summarizing best practices and lessons learned.

Quest Task 14.2- Technical Stakeholder Engagement

Objective: Quest aims to facilitate transparent and inclusive communication, gather diverse perspectives, and ensure stakeholder input is effectively integrated into Ricondo’s master plan. This component focuses on the engagement of key stakeholders, including the public, governmental agencies, and relevant organizations, in the planning process for Orlando International Airport's master plan. Quest will provide its services under the direction of Ricondo and share experience-based advice relative to specific actions or elements of the stakeholder coordination activities associated with the Master Plan Update for Orlando International Airport.

Description: Quest will initiate stakeholder engagement by identifying and categorizing key stakeholders, including public entities, governmental agencies, and relevant organizations. Quest will develop a comprehensive engagement strategy tailored to each stakeholder group to ensure effective communication and inclusion. This involves organizing and facilitating stakeholder meetings, public workshops, and feedback sessions, both in-person and virtually, to gather input and address concerns. Quest will also design and distribute informational materials, manage digital platforms for continuous engagement, and document all interactions and feedback.

Deliverables*:*

- Comprehensive stakeholder engagement strategy and plan.
- Stakeholder identification and categorization report.
- Organized and facilitated stakeholder meetings and public workshops.

- Design of informational materials (digital and print) for stakeholder communication.
- Detailed documentation of stakeholder interactions and feedback.
- Regular progress reports and feedback integration summaries for Ricondo.
- Final report summarizing stakeholder engagement outcomes and their incorporation into the master plan.

Quest Task 14.3-Public Meetings and Communication

Objective: Quest will provide comprehensive support to Ricondo and GOAA for up to three (3) public meetings, including external communications related to the Orlando International Airport master plan update, ensuring effective stakeholder relations and compliance with GOAA's public meeting policies and statutory regulations. This support will include drafting meeting notices, press releases, and public information briefings and advising on communication strategies to manage the increased public relations workload for GOAA staff throughout the master plan process.

Description: Quest will coordinate closely with GOAA and Ricondo to understand the specific communication needs and regulatory requirements for public meetings and related communication. Quest will manage the logistics and facilitation of all public meetings, ensuring compliance with GOAA's public meeting policies and Sunshine Laws. This includes drafting meeting notices, press releases, and public information briefings to ensure timely and transparent communication with all stakeholders. Quest will also provide strategic advice on external communications and assist GOAA in managing increased public relations work by maintaining regular coordination meetings with Ricondo and GOAA. Quest may also provide general support for media relations including interview scheduling and staffing press events.

Deliverables*:*

- Drafted meeting notices in compliance with public meeting policies and statutory regulations.
- Drafted press releases and public information briefings.
- Logistics and facilitation of 3 in-person public meetings.
- Detailed communication strategy for MCO Master Plan Update external communications.
- Regular coordination meeting reports and schedules with Ricondo and GOAA.
- Documentation of all public meetings and stakeholder interactions.

Quest Task 14.4-Publications and Website/Webpage Content

Objective: Quest, working with the Prime Consultant, will lead in coordinating and developing content to be transferred to GOAA as a project website and publication for up to five (5) web pages. The project website shall be linked as an informational page to the existing Orlando International Airport webpage. Quest will assist Ricondo in defining the graphic and written material for the website and other project collateral, along with their periodic updating. These efforts will be coordinated with GOAA public affairs, planning, and IT staff relative to the layout format for webpages and publications. Quest will provide guidance to Ricondo relative to the types of graphics to be incorporated onto the website and in publications, developing a message to be consistently conveyed and ensuring that technical materials are addressed in lay terms to facilitate understanding by uninitiated members of the public.

Quest will review the Master Plan Study summary materials, narrative, graphics, and tabular data before placing information on the webpage. It will also suggest changes to make the documentation easy to understand for the public while maintaining technical accuracy. Published materials and website content will summarize the findings of often highly technical analyses and be as understandable to the layman as possible. Quest, coordinating with GOAA and Ricondo, will maintain current materials and project updates addressing project schedule, work elements, public meetings dates, times and locations, steps in the planning process and results of various studies and analyses that will be included on the project website and publications. Quest will guide the updating of materials and information with GOAA’s advance approval throughout the Master Plan Study.

The consultant anticipates using the same website background currently employed by GOAA and establishing links to specific project-related materials. Quest staff will work with GOAA and Ricondo to define the requirements for the master plan website and the documents, tabular data and graphics associated with the materials to be placed on the site.

***Deliverables**:*

- ✈ Definition of a theme for the Master Plan effort and coordination with Ricondo and GOAA to ensure consistency in messaging over the planning period.
- ✈ Up to five (5) proofed and updated webpages focused on facilitating general public understanding of technical elements of the plan for placement on the site and in publications timed in conjunction with the delivery of analyses and project-related findings to provide periodic updates of progress and outcomes.

Exclusions:

- ✈ Hosting the web page and developing new or original web page layout design.

Diane Hackney 07/30/2024

Diane Hackney, Director of Contracts Management Date

WONDERSTRUCT
Let's **estimate** your project.

Ricondo & Associates, Inc.

Technical editing and writing for Master Plan Definition Document — Orlando International Airport, Greater Orlando Aviation Authority

PROJECT PROPOSAL & ESTIMATE

TO Foo Pham, PE | Managing Consultant
3504 Lake Lynda Drive | Suite 165 | Orlando, FL 32817

WONDERSTRUCT REP	ESTIMATED START	ESTIMATED COMPLETION
Donna Wynn	TBD	TBD

TASK	DESCRIPTION	HOURS	PRICE
Technical edit for multiple document sections	**Delivery dates to be set and agreed upon with receipt of each complete section.**		
	• Task 2.13: Draft Inventory Working Paper	18	$1,998
	• Task 3.8: Draft Forecast Working Paper	18	$1,998
	• Task 4.8: Draft Demand Capacity and Facility Requirements Working Paper	18	$1,998
	• Task 6.7: Draft Alternatives Working Paper	90	$9,990
	• Task 7.4: Draft Deliverables	18	$1,998
	• Task 8.8: Draft Capital Projects and Implementation Working Paper	18	$1,998
	• Task 9.4: Draft Environmental Overview Working Paper	18	$1,998
	• Task 10.3: Draft Sustainability Strategy Working Paper	18	$1,998
	• Task 15.1: Draft Technical Report	95	$10,770
	• Task 15.2: Final Technical Report	20	$2,220
	• Task 15.3: Executive Summary Brochure	30	$3,330
	TOTAL NOT-TO-EXCEED	361	$40,296

General Project Assumptions/Clarifications

- Estimated hours represent approximately 250 full-content pages, 350 pages of exhibits, and a 50-page brochure. Task 15.3 and 15.5 (Draft and Final Technical Reports) are not yet counted in this total. It is assumed that these documents will be the preceding tasks simply combined into a full report. Allocations and prioritization may adjust—at the client's approval—once final page counts are known.

- Estimate does not include extra rounds of edits; it includes one complete proofing/edit and formatting sweep. Wonderstruct will perform these edits as time and budget permit.
- Utilizing "Ricondo Characteristics and Writing Rules" and Ricondo Word template, or Aviation Authority template if directed.
- Changes tracked in Microsoft Word, questions and suggested major revisions in comments section (formatting changes will not be tracked to reduce visual clutter in comments panel).
- Stylesheet included with initialism/acronym inventory, and questions/clarifications for the author.
- Status update twice monthly (or as directed) to ask questions and provide updates on progress/timeline, project team meetings as directed/requested.

Rates

- Alyce (Principal) — $126
- Donna (Senior QC Reviewer) — $111



Donna Wynn
Co-founder, QAQC

APPENDIX B RICONDO EXPENSES

TRIANGLE
REPROGRAPHICS
850 S. Hughey Avenue • Orlando, Florida 32801 • 407-843-1492

Sold To:
Ricondo and Associates
Suite 1500
20 N Clark Street
Chicago, IL 60602

Ship To Code 1
Ricondo and Associates
Suite 165
3504 Lake Lynda Dr
Orlando, FL 32817

Order Date
Ordered By Foo Pham
P.O. Number
Project ID
Job Name

Ship Date
Ship Via
SalesPerson
Estimate #
JTS Number

Description	Size	U/M	Ordered	Shipped	B/O	Unit Price	Total Price
12x18 4/0 Color Print #Copies/Sets 300		CPY				1.50	450.00

Estimate is based on invoices for similar/same order specifications. Details of previous invoice redacted.

RE: Info Request from Triangle Web Site - Quote

Joel Strickland <JStrickland@trianglerepro.com>

Wed 7/24/2024 9:28 AM

To:Foo Pham <fpham@ricondo.com>

Hi Foo –

I'm sharing 2 options below to help with budget concerns.

Option 1
36 Displays 35.5" x 47.5"
Premium Poster Print
Single Sided Mount 3/16" White Ultra/Gator
Estimate Cost **4,266.00 / 118.50** Each before tax, delivery or shipping if applicable
Allow 4-5 Business Days after PDF Proof Approval

Option 2
36 Displays 35.5" x 47.5"
Single Sided Direct Print on 3/16" White Ultra/Gator
Estimate Cost **3,330.00 / 92.50** Each before tax, delivery or shipping if applicable
Allow 3-4 Business Days after PDF Proof Approval
We hope that we can be of service to you. If you have any questions, please feel free to contact us.

Thanks,

Joel Strickland
Customer Service Manager

Triangle Reprographics, Inc.
850 S. Hughey Avenue
Orlando, FL 32801

Tel: (407) 843-1492
Fax: (407) 992-2499
Email: jstrickland@trianglerepro.com
Web: https://www.trianglerepro.com
Quick Upload: Share Your Files

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Order Date
Ordered By Foo Pham
P.O. Number
Project ID
Job Name

Ship Date
Ship Via
SalesPerson
Estimate #
JTS Number

Description	Size	U/M	Ordered	Shipped	B/O	Unit Price	Total Price
Color Plot 24# Bond-Line Work **1st Print** #Copies 1 Total Copies 32	36x48	SF				14.00	448.00

Estimate is based on invoices for similar/same order specifications. Details of previous invoice redacted.

GREATER ORLANDO AVIATION AUTHORITY
Innovation Connecting the World

MEMORANDUM

TO: Members of the Construction Committee

FROM: Edelis Molina, Manager Small Business Programs

DATE: August 06, 2024

ITEM DESCRIPTION

Request for Recommendation of Approval to the Aviation Authority Board of an Addendum to the General Consulting Services Agreement with Ricondo & Associates, Inc. for W-00525 the Airport Master Plan Update of the Orlando International Airport (MCO)

SMALL BUSINESS

We have reviewed the qualifications of the subject contract's MWBE/LDB/VBE specifications and determined that Ricondo & Associates, Inc. proposes 16% MWBE and 5% LDB participation on this addendum.

MWBE UTILIZATION FORM FOR NON-FEDERALLY FUNDED PROJECTS
PLEASE COMPLETE THIS FORM

This form should be used to report Construction and Engineering /Professional Services activities.

Name of Airport: **Orlando International Airport** Telephone No: **(407) 825-7179**

Address: **One Jeff Fuqua Boulevard, Orlando, FL 32827**

Project Name & Number: **Request for Recommendation of Approval to the Aviation Authority Board of an Addendum to the General Consulting Services Agreement with Ricondo & Associates, Inc. for W-00525 the Airport Master Plan Update of the Orlando International Airport (MCO)**

1. Construction Information:

Addendum Amount:

2. MWBE Goal by Group Representation:

Asian Pacific American		Actual Result	
Asian Subcontinent American		Actual Result	
Black American		Actual Result	
Caucasian Female American		Actual Result	
Hispanic American		Actual Result	
Native American		Actual Result	
Other		Actual Result	
Total MWBE Participation	**-**	**Actual Result**	

3.a. Prime Contractor Information:

Name:
Address:
City, State, Zip:
Telephone:

3.b. Name and Address of MWBE Subcontractor

Name:
Address:
City, State, Zip:
Telephone:

3.c. *Identity:
Work Item(s):
Amount of Subcontract
Percent of Prime Contract (%):

4. Engineering/Professional Services Information:

Addendum Amount: **$4,798,160.45**

5. MWBE Goal by Group Representation:

Asian Pacific American	-	Actual Result	0.0%
Asian Subcontinent American	-	Actual Result	0.0%
Black American	-	Actual Result	0.0%
Caucasian Female American	347,624.45	Actual Result	7.2%
Hispanic American	419,025.00	Actual Result	8.7%
Native American	-	Actual Result	0.0%
Other		Actual Result	0.0%
Total MWBE Participation	**766,649.45**	**Actual Result**	**16.0%**

6.b. Engineering / Professional Service Firm Information:

Name: **Ricondo & Associates, Inc.**
Address: **1146 Corporate Blvd Suite 140**
City, State, Zip: **Orlando, FL 32817**
Telephone: **(407) 381-5730**

6.b. Name and Address of MWBE Subconsultant

Name: **Please see attached**
Address:
City, State, Zip:
Telephone:

6.c. *Identity:
Work Item(s):
Amount of Subcontract
Percent of Prime Contract (%):

*** In Items 3.c. and 6.c. above specify the identity of MWBE Subcontractors and E/PS Firms (e.g. Black American, Hispanic American, Asian Subcontinent American, Asian Pacific American, Caucasian Female American, Native American & Other)**

MWBE Subcontractor/Subconsultant Certification

Project Name & Number:	**Request for Recommendation of Approval to the Aviation Authority Board of an Addendum to the General Consulting Services Agreement with Ricondo & Associates, Inc. for W-00525 the Airport Master Plan Update of the Orlando International Airport (MCO)**
Prime Firm:	**Ricondo & Associates, Inc.**
Addendum Amount:	**$4,798,160.45**

Company Name	**Carolyn Binder CPA, LLC**	**Graphics Support Services, Inc., DBA GSS Creative**
Address	3674 Winding Lake Circle	20 N Clark ST Suite 1500
City, State, Zip	Orlando, FL 32835	Chicago, IL 60602
Phone	407-319-0301	312-553-2111
Identity	Caucasian Female American	Caucasian Female American
Work Item	Project Controls	Graphic Design Services
Amount of Subcontract	$38,610.00	48,630.00
Percentage	0.8%	1.0%

Company Name	**Illustrate My Design, LLC**	**Martinez Geospatial, Inc.**
Address	1775 TYSON BLVD 5TH FL	2915 WATERS RD STE 100
City, State, Zip	MCLEAN, VA 22102	EAGAN, MN 55121
Phone	703-548-2929 Ext. 101	651-686-8424
Identity	Hispanic American	Hispanic American
Work Item	Illustrative Renderings, Multi-Media Video	Surveying
Amount of Subcontract	$141,500.00	$277,525.00
Percentage	2.9%	5.8%

Company Name	**Quest Corporation of America, Inc.**	**Wonderstruct, LLC**
Address	17220 CAMELOT CT	5335 W 48th Ave Ste 602
City, State, Zip	LAND O LAKES, FL 33638	Denver, CO 80212
Phone	813-926-2942	312-581-8202
Identity	Caucasian Female American	Caucasian Female American
Work Item	Stakeholder/Public Relations	Technical and Editorial Services
Amount of Subcontract	$220,088.45	$40,296.00
Percentage	4.6%	0.8%

Company Name		
Address		
City, State, Zip		
Phone		
Identity		
Work Item		
Amount of Subcontract		
Percentage		

$766,649.45	**16.0%**
$4,798,160.45	

LDB/VBE UTILIZATION FORM FOR NON-FEDERALLY FUNDED PROJECTS
PLEASE COMPLETE THIS FORM

This form should be used to report Construction and Engineering /Professional Services activities.

Name of Airport: **Orlando International Airport** Telephone No: **(407) 825-7179**

Address: **One Jeff Fuqua Boulevard, Orlando, FL 32827**

Project Name & Number: **Request for Recommendation of Approval to the Aviation Authority Board of an Addendum to the General Consulting Services Agreement with Ricondo & Associates, Inc. for W-00525 the Airport Master Plan Update of the Orlando International Airport (MCO)**

1. Construction Information:

Addendum Amount:

2.a. Name and Address of Prime Contractor

Name:
Address:
City, State, Zip:
Telephone:

2.b. Name and Address of LDB/VBE Subcontractor

Name:
Address:
City, State, Zip:
Telephone:

2.c. LDB or VBE?
***Identity:**
Work Item(s):
Amount of Subcontract:
Percent of Prime Contract (%)

3. Engineering/Professional Services Information:

Addendum Amount: **$4,798,160.45**

4.a. Engineering / Professional Service Firm Information:

Name: **Ricondo & Associates, Inc.**
Address: **1146 Corporate Blvd Suite 140**
City, State, Zip: **Orlando, FL 32817**
Telephone: **(407) 381-5730**

4.b. Name and Address of LDB/VBE Subconsultant

Name: **KMI International, Inc.**
Address: 7335 Lake Ellenor Dr
City, State, Zip: Orlando, FL 32809
Telephone: 407-761-8625 Ext. 202

4.c. LDB or VBE? LDB
***Identity:** Caucasian Male
Work Item(s) Cost Estimating
Amount of Subcontract $248,200.00
Percent of Prime Contract (%) 5.2%

*** In Items 2.c. and 4.c. above specify the identity of LDB/VBE Subcontractors and E/PS Firms (e.g. Black American, Hispanic American, Asian Subcontinent American, Asian Pacific American, Caucasian Female American, Native American & Other)**

GREATER ORLANDO AVIATION AUTHORITY
Innovation Connecting the World

MEMORANDUM

TO: Members of the Aviation Authority

FROM: Scott Shedek, Chair, Construction Committee

DATE: August 21, 2024

ITEM DESCRIPTION

Recommendation of the Construction Committee to Approve an Addendum to the General Consulting Services Agreement with Ricondo & Associates, Inc. (Ricondo) for Professional Services in support of Project W-00525, MCO Airport Master Plan Update at the Orlando International Airport (MCO)

BACKGROUND

On December 9, 2020, the Aviation Authority Board approved the General Consulting Services Agreement with Ricondo, following a competitive award process in compliance with state statutes and Aviation Authority policies.

The agreement is structured as a no-cost base agreement with negotiated hourly rates. Services that are within the advertised scope are negotiated on an as-needed or annual basis, and awarded as addenda to the base agreement. The scope of advertised services includes advising and supporting the Aviation Authority through assessments, studies, master planning, concept development, and preparation of design-build criteria packages, extension of staff, and other efforts as assigned for the development, management, and operation of the existing and future facilities. The services may also include interfacing with the Aviation Authority's committees and the Aviation Authority's departments, and coordinating and providing documentation required by federal, state, and local agencies, including the Federal Aviation Administration (FAA); the Transportation Security Administration (TSA); the Florida Department of Transportation (FDOT); the Orlando Utilities Commission (OUC); the Division of Strategic Business Development; City of Orlando; Orange County, Florida; and, other agencies as required.

ISSUES

A fee has been negotiated with Ricondo for Professional Services in support of W-00525, MCO Airport Master Plan Update at MCO, for the total not-to-exceed fees amount of $4,799,486. Services will consist of professional services and technical analyses to assist the Aviation Authority with the preparation of an update to the MCO Airport Master Plan to successfully complete the MCO Master Plan Update (MPU) within the FAA and FDOT framework. The MPU will address MCO's developmental needs through the next twenty years to realize the Aviation Authority's long-term strategic visions for serving its tenants, businesses, and community stakeholders. The MPU will include holistic analyses of existing MCO facilities, a review of recently completed studies/analyses, and development of aviation activity forecasts which will be used to determine existing facility capacities/ capabilities, and the identification of any deficiencies the MPU may need to address to meet MCO's needs for the 5-, 10- and 20-year planning horizons. Completion of the proposed tasks will be established at the start of the project and prior to conducting the Initiation Meeting. The task schedule for the MPU will be organized to ensure coordination between the airsides, landside and terminal facility analyses. It is anticipated the services will span approximately 30 months from the time the Initiation Meeting is held until the Airport Layout Plans are ready for submission to the FAA for its review and approval.

On August 6, 2024, the Construction Committee recommended to the Aviation Authority Board approval of an Addendum to the General Consulting Services Agreement with Ricondo for Professional Services in support of W-00525, MCO Airport Master Plan Update, at MCO.

SMALL BUSINESS

The Aviation Authority has reviewed the proposal from Ricondo, and determined that Ricondo proposes 16% Minority and Women Business Enterprise (MWBE) and 5% Local Developing Business (LDB) participation on this addendum, and certifies that Ricondo is in good standing as it relates to its small business participation.

ALTERNATIVES

None.

FISCAL IMPACT

The fiscal impact is total not-to-exceed amount of $4,799,486. Funding is from General Airport Revenue Bonds.

RECOMMENDED ACTION

It is respectfully requested that the Aviation Authority Board resolve to accept the recommendation of the Construction Committee to: (1) approve an Addendum to the General Consulting Services Agreement with Ricondo & Associates, Inc. for Professional Services in support of W-00525, MCO Airport Master Plan Update at MCO, for the total not-to-exceed fees amount of $4,799,486, with funding from General Airport Revenue Bonds; and, (2) authorize an Aviation Authority Officer or the Chief Executive Officer to execute the necessary documents following satisfactory review by legal counsel.