

CA No. 8

Vendor No. 362759

Contract No. 9747

Effective Date _____

LEE COUNTY PORT AUTHORITY
LOQ 22-20
Runway 6-24 & Associated Pavements Rehabilitation

CONTRACT AMENDMENT (CA)

Upon the completion and execution of this Contract Amendment, signed by both parties, the parties acknowledge the following work will be performed in accordance with the Contract. The intent of this Contract Amendment is to amend the scope, time or dollars of the contract work. ***No work should be performed without the execution of a written Task Authorization, which shall serve as a Notice To Proceed with the work.*** All the covenants, terms, conditions, provisions and contents of the original Contract, as amended, shall be and are applicable to this Contract Amendment unless specifically identified herein.

Description of work: RSW – Runway 6-24 and Associated Pavements Rehabilitation – Design and Bidding

(1) Reasons for Amendment

- | | |
|---|--|
| ☒ Programmed CIP Project(s) | ☐ Budgeted Task/Work |
| ☐ Unforeseen Site Conditions | ☐ Error/Omission in Plans/Specs |
| ☐ Design Change | ☐ Owner Requested |
| ☐ Safety Considerations | ☐ Cost Benefit to Project |
| ☐ Other: _____ | |

(2) Method of Negotiating Price of Work

 X Lump Sum
_____ Time and Materials
_____ Unit Prices
_____ Hourly plus expenses
_____ Other _____

Method of Negotiating Time of Work:

_____ Consultant/Contractor Records
_____ Cost plus fixed fee
_____ Force Account

(3) Acceptance

It is understood and agreed that the execution and acceptance of this CA constitutes agreement by both parties to amend the Contract in accordance with the represented work and/or conditions. It shall be understood between both parties that this Amendment shall not be effective until approval from the FAA and/or FDOT has been obtained, if required.

Kimley-Horn and Associates, Inc.

ACCEPTANCE

DocuSigned by:

Nathan Lee

2/10/2026

Nathan Lee

#450037-19406

Signed by:

CC8AEFC6D3584AC...

FDOT:

Jennifer Rabold

2/10/2026

FAA:

Port Attorney

LEE COUNTY PORT AUTHORITY AUTHORIZATION

☐

By: N/A
Deputy Executive Director or Designee

☒

Board Item

By: _____
Chair - Lee County Port Authority Board of Port Commissioners

EXHIBIT A – SUBCONSULTANT/SUBCONTRACTOR INFORMATION**CA No. 8**

The CONSULTANT or CONTRACTOR intends to engage the following subconsultant(s) and/or subcontractor(s) to assist in providing and performing the services, tasks, or work required under this Contract Amendment. At any time during the performance of work outlined in this Contract Amendment that the subconsultant(s)/subcontractor(s) identified below change, such change should be sent in writing to the LCPA. Only those subconsultants(s)/subcontractor(s) whereby prior written notification has been given to the LCPA are allowed to perform work under this Contract Amendment.

It is the responsibility of the CONSULTANT or CONTRACTOR to ensure that all subconsultants and/or subcontractors are properly licensed and insured prior to initiating any work in accordance with this contract.

(If none, enter the word "none" in the space below.)

Service or Work to be Performed	Name, Address, Phone and e-mail of Individual or Firm	Estimated Dollar Value of Subcontracted Work
Surveys/Ground Control	Hyatt Survey 2012 Lena Road Bradenton, FL 34211	\$229,087.00
Survey & Mapping	McKim and Creed 5701 Division Dr. A Fort Myers, FL 33905	\$122,141.00
Non-Destructive Testing	Pavement Technical Solutions, Inc. 3 Cattlemans Lane #102 Berryville, VA 22611	\$45,186.00
Cost Estimating	Connico, Inc. 885 Woodstock Rd. #430-222 Roswell, GA 30075	\$71,600.00
Mapping	Martinez Geospatial, LLC 2915 Waters Road #108 Eagan, MN 55121	\$109,122.00
Environmental Permitting	Environmental Science Associates 5401 S Kirkman Road #475 Orlando, FL 32819	\$28,000.00
Geo Investigations	Teirra, Inc. 7351 Temple Terrace Hwy Tampa, FL 33637	\$85,482.00
Drilling	NISSI Geotechnical Engineering, LLC 408 W Renfro St #107J Plant City, FL 33563	\$73,837.00

Utility Designating & Location	DRMP 1715 Monroe Street #500 Fort Myers, FL 33901	\$14,880.00
Airfield Marking	Sightline, Inc. 20 Rock Pointe Lane #204 Warrenton, VA 20186	\$6,200.00

Runway 6-24 & Associated Pavements Rehabilitation
Kimley-Horn Contract #9747

EXHIBIT B - CONTRACT SUMMARY

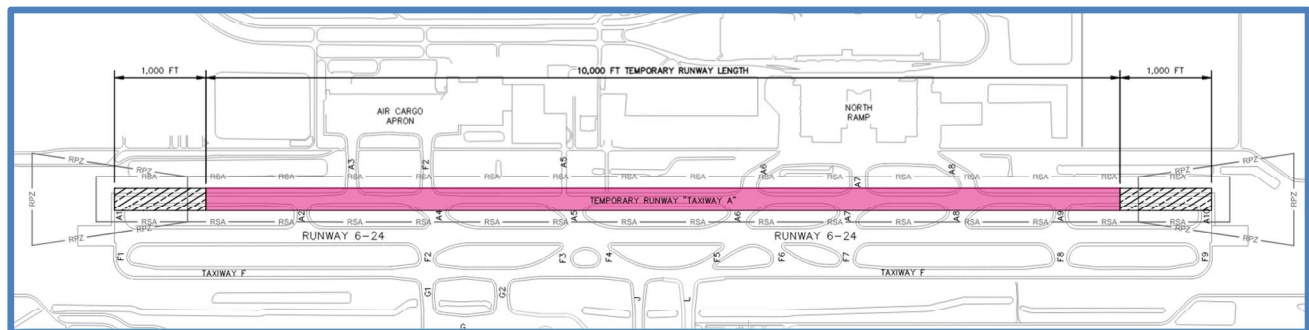
Contract Amendment 8

#	1/28/2026 Task	Board Approved Contract Amount	Total Project Budget Adjustments	Other Contract Adjustments	This Contract Adjustment	CA Issued \$100,000 Level Maximum \$1,000,000 FY 2024-25	CA Issued \$100,000 Level Maximum \$1,000,000 FY 2025-26	Current Contract Value	TAs Issued	Pending TAs	Remaining Contract Balance
1	Project Formulation	\$ 326,409.00						\$ 326,409.00	\$ 326,409.00		
2	Runway 6-24 Pavement Repair							\$ 57,963.01	\$ 57,963.01		
3	Preferred Operational Alternative Whitepaper	\$ 175,757.00						\$ 175,757.00	\$ 156,865.00		\$ 18,892.00
4	Alternative Whitepaper Supplemental Services					\$ 17,002.00		\$ 17,002.00	\$ 17,002.00		
5	Taxiway A Pavement Condition Observation					\$ 31,276.20		\$ 31,276.20	\$ 31,276.20		
6	Pavement Maintenance Action Plan						\$ 45,483.51	\$ 45,483.51	\$ 45,483.51		
7	CATEX						\$ 73,430.00	\$ 73,430.00	\$ 73,430.00		
8	Design and Bidding				\$ 5,261,280.00			\$ 5,261,280.00			\$ 5,261,280.00
CONTRACT TOTALS		\$ 502,166.00	\$ -	\$ -	\$ 5,261,280.00	\$ 48,278.20	\$ 118,913.51	\$ 5,988,600.72	\$ 708,428.72	\$ -	\$ 5,280,172.00

**PROFESSIONAL SERVICES FOR DESIGN AND BIDDING
RUNWAY 6-24 AND ASSOCIATED PAVEMENTS REHABILITATION
SOUTHWEST FLORIDA INTERNATIONAL AIRPORT (RSW)
CONTRACT AMENDMENT NO. 8**

Project Description

RSW is a single runway airport. Runway 6-24 is 12,000' x 150' with an asphalt surface and paved shoulders. Runway 6-24 was last rehabilitated in 2007. Based on current conditions of the runway pavement, as reported by Lee County Port Authority (LCPA) and Florida Department of Transportation (FDOT), it is recommended that Runway 6-24 be rehabilitated prior to 2027. Based on the Final White Paper presented to FAA/ADO on July 29, 2025, it is understood that the preferred operational approach to rehabilitating Runway 6-24, and associated taxiway pavements, is to utilize the strategy of converting Taxiway A into a temporary runway.



The Lee County Port Authority (LCPA or the Authority) has requested Kimley-Horn (KH) to prepare issued for construction bid documents for the rehabilitation of Runway 6-24. The Scope of Work will generally consist of the following:

- Rehabilitation of Runway 6-24 pavements
- Replace Runway 6-24 centerline, touchdown zone (TDZ) and edge lighting
- Evaluate taxiway connectors to updated FAA design standards
- Establish temporary runway on Taxiway A
- Design for temporary PAPIs and REILs.
- Removal and restoration of existing NAVAIDs
- Preparation of documentation in support of FAA publications
- Initiate and establish temporary flight procedures for the temporary runway
- Applicable stakeholder coordination
- Bidding assistance services

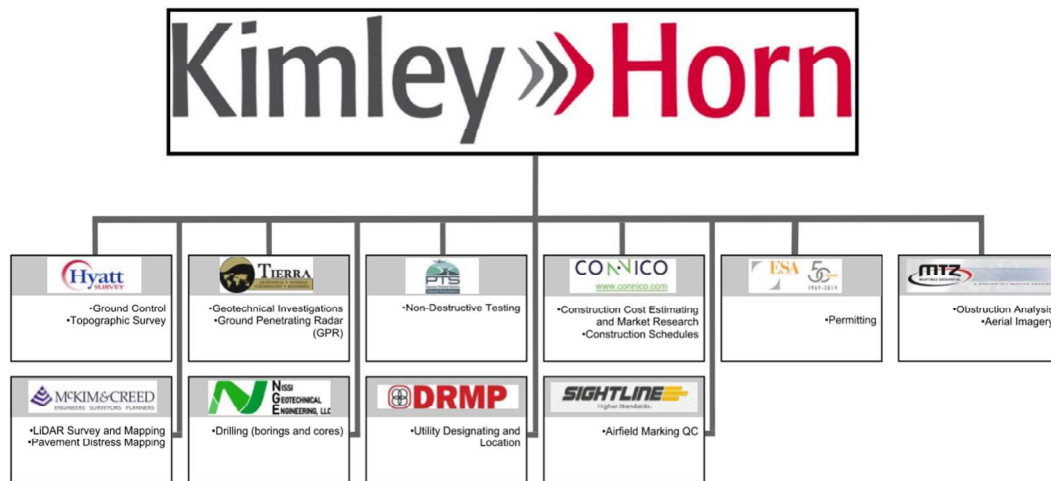
Project Goals and Objectives:

- Minimize construction equipment crossing runways
- Minimize FOD concerns during construction
- Maximize safety
- Minimize restrictions to aircraft fleet or schedules
- Minimize runway closures
- Minimize impact to airlines and passengers
- Maximize available runway length
- Maximize separation between construction equipment and aircraft
- Strive for the shortest construction schedule and cost while meeting FAA's quality standards
- Evaluate need for enhanced markings
- Communicate and coordinate required FAA related work in timely manner in order to hit desired construction periods
- Coordinate with ATCT to insure verbal instruction to pilots comply with the CSPP
- Evaluate need for signage (flagman/decision point, hold short locations, gate arms)
- Evaluate need for lighting (RGS's, WIG-WAGs)
- Consideration of qualified and rested work force during extended hours
- Maintain only one construction site access
- Consideration of FOD control
- Consideration for maintaining lighted runway closure markers
- Consideration for weather visibility

Kimley-Horn acknowledges the following:

- RSW is a single runway airport
- Nighttime construction activity is limited to 12:00am to 5:00 am
- Late arriving flights are to be expected
- RSW may experience weather diversions/delays
- Approach surfaces and NAVAIDs are an integral part of the project's success
- Available runway length and width have impact to the Airlines

Team



The following represents a breakdown of services between design team members.

Kimley-Horn and Associates (KH):

- Lead design consultant and coordinating all efforts of the team
- Airfield civil engineering
- Airfield electrical engineering
- Airfield signage, lighting, navigational aids
- Flight procedures
- Pavement design
- Airfield markings
- Project phasing and sequencing
- Preparation of contract drawings, specifications and engineer's report
- Airfield design and bidding assistance services

Hyatt Survey:

- Ground Control
- Topographic Survey

McKim and Creed

- LiDAR Survey and Mapping
- Pavement Distress Mapping

Pavement Technical Solutions, Inc. (PTS)

- Non-Destructive Testing

Connico, Inc.

- Construction Cost Estimating and Market Research
- Construction Schedules

Martinez Geospatial, LLC

- Obstruction Analysis
- Aerial Imagery

Environmental Science Associates (ESA).

- Permitting

Tierra, Inc.

- Geotechnical Investigations
- Ground Penetrating Radar (GPR)

NISSI, LLC

- Drilling (borings and cores)

DRMP

- Utility Designating and Location

Sightline

- Airfield Marking QC

Project Schedule

DESIGN

Design Notice-To-Proceed March 13, 2026

30% Design Deliverable - December 22, 2026

60% Design Deliverable – March 23, 2027

90% Design Deliverable – June 23, 2027

Bid Documents Deliverable – August 30, 2027

Submit Grant Application to FAA by May 1, 2026

Receive FAA Grant - June/July 2026

Take FAA Grant to ASMC/Joint Board - Aug/Sept 2026

CONSRUCTION

Submit Pre-Grant Application to FAA - October 2027

Begin Bidding - April 2028

Receive bids - May 2028

Submit Grant Application to FAA - June 1, 2028

Receive FAA Grant - July 31, 2028

Take the FAA Grant/Bid/CA fees/CM Fees to ASMC/Joint Board - Aug/Sept 2028

Start Construction - September 2028

Scope of Services**Task 1 – Coordination/Administration/Management**

The following subtasks will be initiated upon Notice-to-proceed. These subtasks will occur throughout the duration of the design and bidding phases.

- 1.1 Security Badges** – Key team members (up to 7), three (3) from KH and four (4) subconsultants will require security badges for access to the Air Operations Area (AOA) at RSW for the purpose of providing subconsultant escorts, and field reviews in support of this task authorization. After successful completion of the training, badged personnel will be cleared for movement and non-movement areas.

Deliverables:

- KH will be required to submit documentation as required by the badging office regarding this task to the LCPA.

- 1.2 LCPA Working Group Coordination** – KH will coordinate and participate in Working Group Coordination meetings. KH will prepare the meeting agenda, meeting exhibits, and publish meeting minutes. The goal of these meetings will be to provide an opportunity for both LCPA and KH to review and discuss progress of the project.

Deliverables:

- KH will develop and distribute an agenda to the LCPA's Project Manager at least 24 hours prior to the meeting for the addition of topics, in Microsoft Word format.
- KH will also develop and distribute meeting minutes and an attendance log to the attendees in electronic PDF format.

- 1.3 FAA Coordination** – KH will participate in meetings with FAA ADO throughout the design schedule. LCPA will schedule these meetings with FAA. Prior to each meeting with FAA, KH will participate in "dry-runs" with LCPA Staff. KH will prepare the meeting agenda, power point slides, meeting exhibits, and publish meeting minutes. The goal of these meetings will be to discover the necessary requirements and expectations of FAA.

Deliverables:

- KH will develop and distribute an agenda to the LCPA's Project Manager at least 24 hours prior to the meeting for the addition of topics, in Microsoft Word format.
- KH will also develop and distribute meeting minutes and attendance log to the attendees in electronic PDF format.

- 1.4 FDOT Coordination** – KH will coordinate and participate in meetings with FDOT. Prior to each meeting with FDOT, KH will participate in “dry-runs” with LCPA Staff. KH will prepare the meeting agenda, power point slides, meeting exhibits, and publish meeting minutes. The goal of these meetings will be to establish funding agreements, and to keep FDOT informed of the project status and project schedule.

Deliverables:

- KH will develop and distribute an agenda to the LCPA’s Project Manager at least 24 hours prior to the meeting for the addition of topics, in Microsoft Word format.
- KH will also develop and distribute meeting minutes and attendance log to the attendees in electronic PDF format.

- 1.5 Stakeholder Engagement** – KH will coordinate and participate in meetings with Airlines, private pilots, tenants and other stakeholders as identified in the project kickoff meeting. The purpose of these meetings will be to introduce the stakeholders to the project and will occur at various stages of the design. It is understood that these meetings may occur as a group of stakeholders or meetings with individual stakeholders. During Stakeholder Engagement, KH will coordinate with LCPA to confirm the Chief Pilot listing and coordinate the project with affected airlines. KH will prepare a meeting agenda that focuses on determining key points of contact with stakeholders, introduction of overall programs and intended program schedule, dissemination of information to stakeholders regarding available NAVAIDs, understanding of operational requirements, seasonal requirements, operating schedule, required runway length, required NAVAIDs, required procedures, etc. and obtaining Airline requirements needed for continual safe operations.

Deliverables:

- KH will develop and distribute an agenda to the LCPA’s Project Manager at least 24 hours prior to the meeting for the addition of topics, in Microsoft Word format.
- KH will also develop and distribute meeting minutes and attendance log to the attendees in electronic PDF format.

- 1.6 Airport Special Management Committee (ASMC) Presentations** – KH will coordinate with LCPA Staff to present at ASMC meetings. Prior to each meeting with ASMC, KH will participate in “dry-runs” with LCPA Staff. KH will prepare a PowerPoint presentation. The goal of these presentations will be to provide a project schedule, project updates, and ongoing coordination activities.

Deliverables:

- MS Power Point presentation in electronic format.

- 1.7 Coordination with Construction Manager** – During the 60%, 90% and Bid Document Design phases, KH will meet with LCPA’s Construction Manager to

coordinate and communicate the design and design intent.

Deliverables:

- KH will develop and distribute an agenda to the LCPA's Project Manager at least 24 hours prior to the meeting for the addition of topics, in Microsoft Word format.
- KH will also develop and distribute meeting minutes and attendance log to the attendees in electronic PDF format.

1.8 Project Management – KH shall manage the project design and coordinate with all subconsultants in accordance with customary practices for design projects. KH's internal administration for staffing, work planning, coordination, production coordination, schedule, scope and budget adherence is part of this task.

1.9 Internal Design Team Meetings - Internal design team virtual meetings will be held weekly to provide an opportunity for each design team member to review and discuss project goals, and progress of their scope items as well as receive updates from the design status meetings. Monitoring the project's production, and team deliverables will be discussed.

1.10 Invoices - KH will provide monthly billing breakdowns to the LCPA. The billing will include attachments required to process the invoice. KH pay applications may be required to be itemized to align with funding allocations. The diverse vendor spreadsheet will be provided with each invoice.

Deliverables:

- KH will submit to the LCPA an invoice in electronic PDF format by the 15th of each month for effort completed in the previous month. A draft invoice will be submitted to the LCPA Project Manager for approval prior to a final invoice upload to Converge.

1.11 Project Schedule - KH will develop a schedule in Microsoft Project format based on the tasks identified in this scope of services. The schedule will be submitted for review and approval by LCPA and become the baseline schedule used for scheduling various tasks and milestones. KH will coordinate with LCPA and team members to track progress of the schedule. A summary of the schedule progress will be submitted on a monthly basis. Occasionally, and with LCPA's approval, the baseline schedule may be adjusted as Project milestones for each task included in this contract change as a result of constraints outside of the KH's control. It is assumed that milestone completion dates are dependent on Notice to Proceed (NTP) and the completion of field investigations. If this date changes, other milestone completion dates may be changed accordingly.

Deliverables:

- KH will submit a baseline schedule to LCPA within four (4) weeks of NTP outlining work activities, field activities and deliverables in electronic PDF format.

Task 2 – Preliminary Design, 30%

- 2.1 Design Kick-Off Meeting** – KH will coordinate and participate in a Design Kick-Off Meeting that will be held after notice to proceed. KH will prepare the meeting agenda, meeting exhibits, and publish meeting minutes. The purpose of the meeting is to define the project scope, establish design goals and methods, and quality control and quality assurance procedures.

Deliverables:

- KH will develop and distribute an agenda to the LCPA Project Manager at least 24 hours prior to the meeting for the review of topics, in Microsoft Word format.
- KH will develop and distribute meeting minutes and attendance log to the attendees, in electronic PDF format.

- 2.2 Data Collection and Review** – KH will collect, review, compile, and summarize available data provided by LCPA. LCPA is to provide relevant information such as as-builts, aerial photogrammetry, survey data, previous design plan record drawings, specifications, and geotechnical investigation reports. Specifically, record documents on file with the Airport are to provide data regarding stormwater, pavements, airfield electrical system, lighting, and signage and FAA systems within the project limits including the lighting and signage circuitry as well as the existing lighting vaults, regulators, and communication. KH has received existing record information as described under Contract Amendment No. 1, Task 1.7. KH will use this information, and apply lessons learned to minimize unforeseen conditions. This information will be compiled and visually verified in the field for the preparation of a base plan for conceptual design. It is assumed that available as-built data is incomplete and not prepared for design intentions.

- 2.3 Site Investigation: Project Survey** - KH will coordinate site investigation operations between subconsultants and LCPA. Coordination shall occur throughout the data collection phase, the data development phase and into the subconsultant deliverable review phase. The collection of data on the runway and into the runway safety area will take place while the runway is closed between 12:00a – 5:00a. The collection of data on taxiways and into taxiway safety areas will be coordinated during the 30% design phase. It is assumed that data collection within the taxiway and taxiway safety areas will be conducted on a pullback method after approval from Airport Operations. It is assumed that LCPA will provide Lighted Xs and turn off all airfield lighting for data collection on the runway.

- 2.3.1 Topographic Survey** - Topographic surveying services for this project will be provided by Hyatt Survey Services, Inc. Hyatt's effort will be limited to the

“soft surfaces” within the survey limits as provided in their scope of work. KH will not be providing escort services for Hyatt. Hyatt will be trained and badged for the movement area. The survey will locate all existing physical features within the project limits, including pavement limits, taxiway alignments, drainage structures, edge lighting, signage, and other utilities. Each point located during the topographic survey will have an elevation assigned to it as part of the locating process. The topographic survey will include the following within the limits:

- Establish a minimum of two (2) “On-Airfield” Temporary Control Points – Consisting of a survey nail/washer in pavement or a rebar with cap in a grassy area. Each mark will be observed for two (2) independent 4-hour National Oceanic and Atmospheric Administration (NOAA) Online Positioning User Service (OPUS) Sessions. The new survey control points will be documented as per the applicable FAA forms.
- The survey will be referenced to the NAD83/11 datum of the Florida State Plane Coordinate System.
- Elevations will be referenced to published NGS benchmarks relative to the NAVD 88 vertical datum.
- The survey shall include the location and identification of all above ground, visible structures (including overhead wires) and features along with any accessible subterranean features including pipe inverts with size and material.
- The Survey will determine site elevations on full cross sections (minus interior runway paving) within the survey limits and collected at 100-foot intervals/stations.
- Runway/Taxiway edge of paving will be surveyed on a 25’ grid interval.
- Elevations will be collected at grade breaks, at changes in direction within the project limits.

2.3.2 Mobile LiDAR Collection and Mapping - LiDAR data collection and mapping will be provided by McKim and Creed. Mobile Mapping Lidar will be collected on all of the “hard surfaces” within the project limits as provided in their scope of work. This data will be utilized to collect pavement features, markings, and above ground lighting. KH will provide one (1) escort for the duration of field activities required by McKim and Creed. Data Extraction (Topographic Feature Data from LiDAR data) will be collected by mobile mapping van on the pavement areas identified in the project limits. The data will be collected to a vertical accuracy of 0.05-ft. The features being collected, within the project limits, as part of the mobile mapping survey include:

- Runway/Taxiway centerlines

- Edges of pavement
- Pavement markings
- Pavement joints/panels
- Airfield lights

It should be noted that any areas that cannot be accurately surveyed by the mobile mapping van will be collected with traditional surveying methods to supplement the mobile mapping survey data, as noted in previous sections of this scope.

- 2.4 Site Investigation - Pavement Distress Inventory** - Specific to this Task, for Runway 6-24, KH will visit the site for three (3) consecutive nights with up to five (5) personnel for the purpose of evaluating the existing conditions of pavements within the project area. For Taxiway A and associated connectors, KH will visit the site for three (3) days with up to three (3) personnel. Pavement inspections will be performed during night-time hours for Runway 6-24 and day-time hours for Taxiway A and connectors to Runway 6-24. Inspections will be performed by “feet on the ground” method in accordance with ASTM D5340 distress definitions only to identify areas with load-related distresses. The presence of load-related distress can indicate the pavement is structurally inadequate for its current use and may require additional testing and/or consideration of alternative rehabilitation strategies. These areas will be documented with detailed notes, locations, and photographs. While on-site, Kimley-Horn will mark the locations of the project geotechnical boring and pavement cores. The results of this inspection will be considered in identifying specific locations for pavement cores and borings.

Deliverables:

- KH will prepare one (1) set of map exhibits for field data collection and distress schematic efforts.
- KH will prepare map exhibits using ArcGIS and/or AutoCAD Civil 3D depicting visual distress manifestations schematically located and identified in accordance with the ASTM D5340.

- 2.5 Site Investigation: Ground Penetrating Radar (GPR)** - KH will coordinate site investigation operations between subconsultants and LCPA. Coordination shall occur throughout the data collection phase, the data development phase and into the subconsultant deliverable phase. The collection of data on the runway will take place while the runway is closed between 12:00a -5:00a. The collection of data on Taxiway A will be coordinated during the 30% design phase. It is assumed that data collection within the taxiway will be conducted on a pullback method after approval from Airport Operations. It is assumed that LCPA will provide Lighted Xs and turn off all airfield lighting for data collection on the runway. GPR data collection services will

be provided by Tierra, Inc. KH will not provide escort services for Tierra. Tierra will be trained and badged for the movement areas. Tierra will perform GPR scans on Runway 6-24 and Taxiway A to identify subsurface anomalies and to determine where additional geotechnical investigation is needed.

Deliverables:

- Geotechnical Report summarizing subsurface anomalies.

2.6 Site Investigation: Non-Destructive Testing (NDT) – KH will coordinate site investigation operations between subconsultants and LCPA. Coordination shall occur throughout the data collection phase, the data development phase and into the subconsultant deliverable phase. The collection of data on the runway will take place while the runway is closed between 12:00a- 5:00a. It is assumed that LCPA will provide Lighted Xs and turn off all airfield lighting for data collection on the runway. Non-Destructive Testing will be performed by Pavement Technical Solutions, Inc. (PTS). KH will provide one (1) escort for the duration of field activities required by PTS. This NDT will be performed on Runway 6-24 and Taxiway A. The data will be utilized to assess the overall support conditions of the in-place pavements. NDT will be conducted using a Falling Weight Deflectometer, which will collect data on the pavement deflections. The NTD data will be used to evaluate the following pavement properties, applying appropriate analysis procedures per FAA Advisory Circular (AC) 150/5370-11B guidance:

- Normalized Deflections. Deflection profiles will be plotted to illustrate the maximum deflections (normalized to a standard load and temperature) against the stationing along the facility. Areas with changes in pavement structural capacity or current condition will be evident from the longitudinal deflection profiles.
- Layer Modulus Values. Elastic moduli (E) for each pavement layer and subgrade support values (modulus of subgrade reaction [k-value]) will be determined from back calculation. KH will use these results as inputs to determine the rehabilitation/reconstruction alternatives.

The results of this effort will be used in developing the rehabilitation strategies and PCR determination under Tasks 2.9 and 3.6 respectively.

Deliverables:

- A summary letter detailing NDT testing and subsequent analysis will be developed for the purpose of the effort, list of available information, NDT results, structural evaluation results including Impulse Stiffness Modulus profiles and data and back calculation results.

- 2.7 Site Investigation: Geotechnical** – KH will coordinate site investigation operations between subconsultants and LCPA. Coordination shall occur throughout the data collection phase, the data development phase and into the subconsultant deliverable phase. The collection of data on the runway and into the runway safety area will take place while the runway is closed between 12:00a- 5:00a. The collection of data on the taxiways and into the taxiway safety areas will be coordinated during the 30% design phase. It is assumed that data collection within the taxiway and taxiway safety areas will be conducted on a pullback method after approval from Airport Operations. It is assumed that LCPA will provide Lighted Xs and turn off all airfield lighting for data collection on the runway. The geotechnical investigation and reporting will be performed by Tierra, Inc. and NISSI, Inc. KH will not provide escort services. Tierra will be trained and badged for movement areas and will escort NISSI personnel. KH will locate the borings and cores in the field with Tierra. The work covered by this section consists of the drilling test borings and obtaining pavement cores at the locations defined by Tierra's attached scope of services, and laboratory testing on the recovered soil samples in accordance with FAA guidelines.

Deliverable

- A report will be prepared that includes a description of field and laboratory investigation procedures
- Test boring logs, core logs and soil profiles to include:
 - Surface elevation at the test boring locations
 - Thickness of pavement, topsoil, fill and underlying soil
 - Groundwater encountered during drilling and at completion of drilling
 - Standard penetrations/DCP blow count values as a function of depth
 - Existing subsurface condition of the site including a description of the prevailing subsurface characteristics of the site, soils stratigraphy and consistency, groundwater conditions, any unusual conditions, and summary of the existing pavement conditions.

- 2.8 Preparation of Forecasts for Pavement Design** - KH will coordinate with LCPA and Airlines to establish the appropriate activity forecast data for use in the pavement design. It is assumed that KH will utilize the Master Plan and Part 150 forecast and create derivative forecasts specific to the utilization of Runway 6-24 for both existing and future fleet mix. Similarly, Taxiway A will be examined for structural capacity functioning as a temporary runway.

Deliverables:

- All related data, source of data, basis of forecast, supportive calculations and design decisions will be documented and summarized in the Engineer's

2.9 Pavement Rehabilitation Strategies – KH will use the FAA mechanistic design method to design rehabilitation/reconstruction alternatives for the runway and taxiways. The FAA FAARFIELD program is proposed as the primary mechanistic design method as described in FAA Advisory Circular 150/5320- 6G. Using the data obtained from the on-site review, ground penetrating radar, geotechnical investigation and NDT, KH will develop the rehabilitation strategy for Runway 6-24. This effort will also evaluate necessary pavement improvements to Taxiway A under the conditions of being utilized as a temporary runway. Strategies may include mill/overlay and partial full depth reconstruction.

Deliverables:

- All analytical methods, results, and rehabilitation methods will be summarized in pavement design section of the Engineer's Report.

2.10 Permitting Due Diligence – KH will manage the services of Environmental Science Associates (ESA). ESA will perform the due diligence specific to determining the requirements and schedule for applicable local, state and federal permitting applicable to the project. ESA will prepare a due diligence memo outlining federal, state, and local permits that are anticipated to be needed for the project. Field reviews will be conducted to quantify and confirm anticipated impacts and associated mitigation, if needed. The memo will detail the anticipated components required for each permit application and the associated timeline typically required to obtain final agency action. When requested, ESA will attend coordination meetings with KH and LCPA staff and the pre-application meetings with the permitting agencies (SFWMD, Lee County, and potentially FDEP for State 404 permitting) to gather feedback on the proposed project and provide documentation of the meetings for incorporation into the final permitting due diligence memo.

During the design phase, pre-application meetings will be held with SFWMD to determine if the project will require application for an Environmental Resource Permit or a Master Dewatering Permit Modification.

Lee County will require a Limited Development Order application and may require an electrical permit if airfield vault modifications are required, which will be determined under Task 2.2.

Deliverables:

- Permitting Due Diligence Memo
- SFWMD Permit Applications (if needed)

- Lee County Permit Applications

2.11 NEPA Compliance – KH will manage the services of ESA. It is anticipated that the proposed project is subject to NEPA and therefore a CATEX (at a minimum) will be required. Based on recent directions from the FAA, a documented CATEX will be submitted and reviewed by the FAA's Environmental Protection Specialist (EPS) in the Orlando Airports District Office (ADO). It is assumed this project will be reviewed and approved as a CATEX.

2.12 Obstacle Data Collection - In compliance with FAA Advisory Circulars 150/5300-16B, 150/5300-17C, and 150/5300-18B Martinez Geospatial will collect imagery and existing obstacle data to support the development of temporary instrument approach procedures for the temporary runway configuration. KH will manage the services of Martinez Geospatial. Data will be collected and, if required, submitted to FAA Airports-GIS through the Airport Data and Information Portal (ADIP). The table below details the information that will be collected in this task and the source of the data collection. Specific items and tasks included in this scope are consistent with Table 2-1 in AC 150/5300-18B, Instrument Procedure Development project type.

Item	Source			
	Ground Survey	Lidar Survey	Aerial Survey	Design Data
Survey and Quality Control Plan	X	--	--	
Establish/Validate Geodetic Control and tie to the National Spatial Reference System (NSRS)	X			
Survey, monument and document, temporary threshold locations	X			
Determine temporary runway length based on temporary thresholds	X			
Runway centerline and offset profiles	X	X		X
Determine Touch Down Zone Elevations (TDZEs)	X	X		
Determine Runway True Azimuth	X			
Determine runway abeam points of navigational aids		X		X
Perform Airspace Analysis			X	

ADIP Project Setup

KH will develop, submit, and gain approval of the “Statement of Work” for the project through the ADO and FAA Airports-GIS. KH will assemble, submit, and gain approval of the AP Acquisition Report through FAA Airports-GIS. KH will complete necessary FAA Report information/documentation related to field- survey, including methodologies and equipment specifications. KH will coordinate with LCPA Airport Operations regarding airfield access and all onsite escorting/security/safety matters.

Aerial Imagery Acquisition

New color aerial imagery will be captured for all areas outlined in yellow in Figure 1 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.

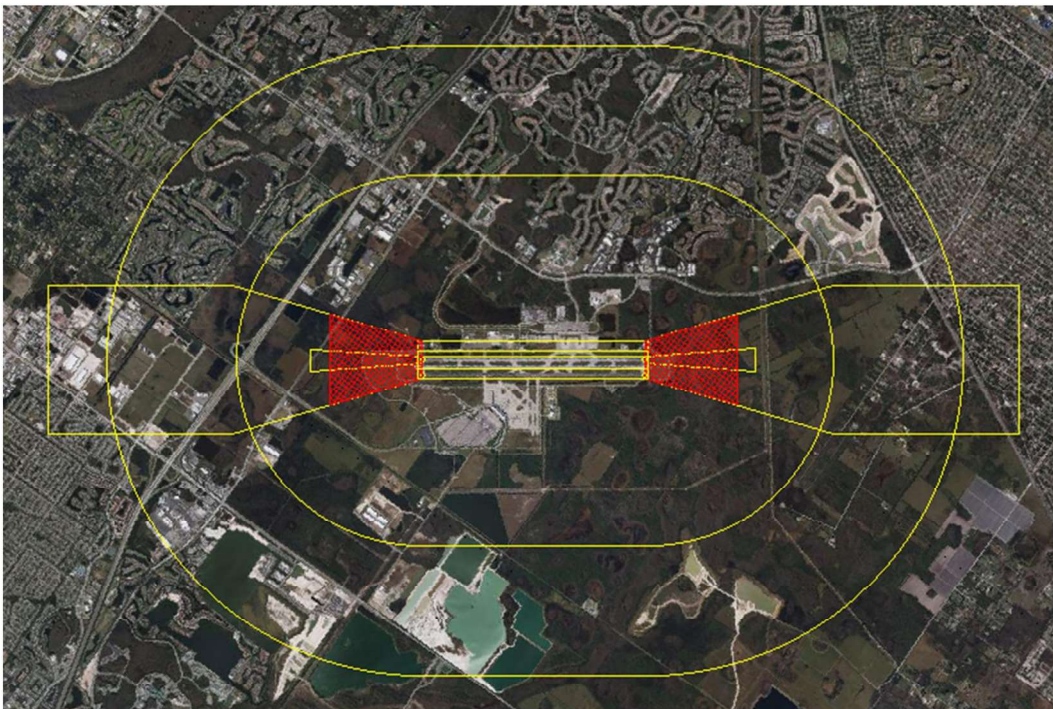


Figure 1: Imagery Acquisition Area

The aerial imagery acquisition flight mission will consist of a single “block” of imagery with an imagery resolution of 10cm and ortho-imagery 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 (Martinez Geospatial) Quality Assurance procedures for photogrammetric acceptability and compliance with AC 150/5300-17C requirements.

Establish Geodetic Control / Temporary Control (Field-Survey)

There is one PACS and two SACS monuments published for the airport. KH will seek to recover and use one of these monuments for this project. Should these monuments be unrecoverable, or impact airport operations, temporary control will be used in accordance with AC-150/5300-16B and may use the control points established in Task 2.3.1. Geodetic data will be tied to the NSRS using the latest published adjustment (2011).

Survey Imagery Photo Control (Field-Survey)

A combination of photo-identifiable control points and artificial targets will be selected/set and surveyed for use as ground control for aero-triangulation of the new aerial imagery (if required). 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 set, 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. Per FAA requirements, in addition to the imagery control points, an additional 5 Independent Checkpoints will be surveyed and processed through NOAA 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

KH will produce orthophotos to comply with the requirements of the FAA Airports-GIS program and AC 150/5300-17C. One set of orthophotos will be produced. Orthophotos will cover the area defined in Figure 1.

Airport Airspace Analysis/Obstruction Surveys

Airport Airspace Analysis data collection will be completed for the temporary runway at RSW. Obstacle data collection/submission will be accomplished in accordance with all relevant sections of AC-150/5300-18B, Section 2.7.1 and the FAA Airport Airspace Analysis Checklist. It is assumed that the temporary runway will be a vertically guided runway. Formatting of final reported 18B/AGIS obstacles will adhere to the specifications of AC 150/5300-18B, Chapter 5 Airport Data Features.

Supplemental Obstacle Data

Within the red hatched area on Figure 1 KH 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.

Deliverables:

- Shapefile and CAD file
 - Obstruction surface linework
 - Obstruction x-y-z points
 - Obstruction area polygon (if applicable)
 - Obstruction area grid (if applicable)
- Attribute data will be included shapefile as object data
- Attribute data for the CAD file will be obtained in a companion Excel spreadsheet
- Attribute data will include
 - Object type
 - Northing / Easting / Elevation (MSL)
 - Latitude / Longitude
 - AGL Height (as able, for penetrating objects only)
 - Height above runway end
 - Height above Touchdown Zone Elevation
 - Height above airport elevation
 - Distance to runway end
 - Distance from runway centerline (and direction)
 - Penetration value (if applicable)
 - Surface affected and slope (if applicable)

Airports-GIS Data Submission and Final Reporting

All data will be formatted into compliant Airports-GIS format and prepared for submission. If submission into ADIP is required, 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. Following submission, KH will periodically follow up with NGS until the final submission receives approval by NGS.

Deliverables

- ADIP Statement of Work (for FAA Airports-GIS approval)
- Aerial Photography Acquisition Report, as needed (for FAA Airports-GIS approval)
- Airports-GIS Airport Airspace Analysis Data
- Supplemental Obstacle Data
- Digital ortho-imagery (0.50' resolution)
- Final report (for FAA Airports-GIS approval)

2.13 Taxiway Connectors Geometric Verification – KH will evaluate the existing taxiway connectors from Runway 6-24 to Taxiway F and Taxiway A. These taxiway connectors were designed and constructed under previous FAA Advisory Circular criteria and will be evaluated for horizontal geometrics, location, and strength. KH will define critical aircraft and perform a Runway Exit Design Interactive Model (REDIM) to verify that the existing connecting taxiways are justified to remain in place under current FAA AC criteria and to validate potential high-speed exit locations, exit functionality, and runway occupancy times for current and forecasted fleet mixes at RSW. Up to one (1) existing fleet mix, and up to one (1) future fleet mix, will be assessed, based on RSW-ATCT and LCPA Operations input. KH will also be cognizant of FAA priorities such as elimination of hot-spots, runway direct access from aprons and RIM initiatives as well as their impact on design recommendations. KH will prepare an exhibit depicting the two-dimensional layout of the pavement, taxiway edge lighting, signage and markings. Schematic design for these taxiway modifications will be prepared and presented to LCPA for acceptance prior to initiating further design. KH will prepare an Engineer's Opinion of Probable Costs (OPCC) for these modifications. The OPCC will carry a an appropriate construction contingency.

Deliverables:

- Schematic exhibits for discussion and coordination with LCPA, FAA and Stakeholders.

2.14 Modification of Standards – KH will prepare the following Modification of Standards (MOS) in accordance with U.S. Department of Transportation Federal Aviation Administration, Order Number 5300.1G. KH will prepare the documentation, including narratives and exhibits, to be submitted to FAA via their web-based automatic application process. The narrative associated with each MOS application will address the following:

- Description of the proposed Modification of Standard
- Explanation of why the standard cannot be met
- Discussion of viable alternatives
- Explanation of why the Modification is necessary to conform to local laws and

regulations (if applicable)

- Statement as to why the Modification would provide acceptable level of safety, economy, durability and workmanship
- Explanation of any special operational procedures and/or restrictions necessary to accommodate the Modification

LCPA will provide KH access to the FAA portal in order to upload the narrative and exhibits to complete the application process and to enable FAA to begin their review. It is anticipated that FAA will comment on each submitted MOS and will warrant a response by KH. The following MOSs are anticipated:

- Waiver to allow temporary runway without paved shoulders (temporary MOS condition)
- Waiver to allow temporary condition of direct taxiway access to active temporary runway (temporary MOS condition)
- Waiver to allow in-line taxiway to runway ends (temporary MOS condition)
- Waiver to allow existing fillets to remain as configured on connecting taxiways
- Waiver to allow existing surface gradients (temporary condition if Temporary Runway 5-23 does not meet current requirements of AC 150/1500-13B Paragraph 3.16.1.2)
- Waiver to allow existing surface gradients (if Runway 6-24 does not meet current requirements of AC 150/1500-13B Paragraph 3.16.1.2)
- Waiver to allow existing runway shoulders to remain at current widths (25' and 35')
- Waiver to permit Taxiway A existing L-867 edge light cans to remain in place while Taxiway A is used as Runway 5-23
- Waiver to allow non-standard taxiway fillet geometry

2.15 FAA Reimbursable Agreement (RA) – RAs are anticipated to coordinate the temporary NAVAIDs, engineering review of the removal and reinstallation of existing NAVAIDs, and Flight Checks. KH will prepare a draft letter for LCPA to submit to the FAA Central Service Area (CSA) National Airspace System (NAS) lead planner. The letter will request an RA for engineering support and a separate one for construction support. Included will be the scope of the project and a summary of activities requiring FAA involvement. KH will list in the RA request the specific activities for which FAA NAS Planning and Implementation involvement will be required. KH will ask for a timely FAA review of the as-bid contract documents and the contractor's as-built plans but KH does not control actual FAA review times. KH will request FAA observation and inspection of the work around FAA facilities during only those portions of the work that affect FAA facilities.

KH will state that LCPA understands that overtime pay may be required for flight check operations and will ask that it be accounted for in the RA when estimating

duration for those tasks. Similarly, KH will state that LCPA understands that it is now FAA policy that the cost for the Flight Procedures Office personnel in amending and/or providing new procedures due to the project construction will be accounted for within the RA. Lastly, KH will ask for a draft RA as soon as possible for LCPA's review.

KH will notify the FAA through the Instrument Flight Procedure Information Gateway Portal for the requirement to amend current published instrument approach/departure procedures or the need for any new procedures. Notification through the portal will also notify Flight Inspection and will be accounted for within the RA. KH will work closely with Flight Procedure and Flight Inspection to ensure they have all the required data to meet publication dates and commission flight inspections throughout the duration of the project. LCPA will share project schedule with FAA to ensure they are aware of required dates for an approved RA, publication dates and flight inspections.

2.16 Drawing Preparation – KH will prepare Engineering drawings in accordance with specific format requirements. Drawings prepared up to this phase will include:

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Phasing Notes/Project Schedule

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Demolition Details (2)

Horizontal and Vertical Control Plan (25)

Boring Log and Pavement Core Profiles (25)

Erosion Control Plans (8)

Erosion Control Notes and Details (2)

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Typical Pavement Sections (2)

Airfield Marking Plans (25)

Airfield Marking Details (4)

Electrical Notes/Legend and Abbreviations

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Electrical Lighting and Signage Demolition Details (4)

Electrical Lighting and Signage Construction Plans (25)

Electrical Lighting and Signage Construction Details (4)

- 2.17 General Conditions and Technical Specifications** – KH will prepare an outline of general conditions and technical specifications. Specifications will follow FAA format using unit cost where applicable.
- 2.18 Project Quantities and Engineer's Opinion of Probable Construction Costs (OPCC)** – KH will determine project quantities for items of work. KH will prepare an OPCC under this task to include project quantities derived from both plan takeoffs and assumed quantities for known items of work. The cost estimate will be broken-out into unit cost according to the anticipated pay items. KH has no control over the cost of labor, materials, equipment, or over the contractor's methods of determining prices or competitive bidding or market conditions. The OPCC will be based on the information known to KH at the time of preparation and represent KH's judgment as a design professional familiar with the construction industry. KH cannot and does not guarantee that proposals, bids, or actual construction costs will not vary from its opinions of probable cost. At this time, the OPCC will carry an appropriate contingency.
- 2.19 Quality Control** - KH will conduct an in-house quality control review of the 30 percent submittal prior to submission to LCPA. The quality control review will include engineers with no involvement in the project that will be matched to their specific expertise to review the project efficiently. Bluebeam software will be used to gather all comments in one general location. This information will be kept for records.
- 2.20 Deliverable** – KH will package and deliver the following to the LCPA at the complete of the Preliminary Design Phase, 30%:
- 3 bound hard copies and PDF of 11x17 plans
 - 1 hard copy and PDF of Technical Specifications (Table of Contents)
 - 1 hard copy and PDF of Engineer's Estimate of Probable Construction Costs

Task 3 – Design Development Phase, 60%

The information obtained during the 30% phase will be reviewed and refined during the Design Development Phase - 60%. This phase will encompass the professional services required to furnish the LCPA with a set of 60% documents, including technical specifications, 60% drawings, construction phasing and safety and cost estimates to reflect any adjustments to the project since the previous phase. These documents will be developed and prepared in accordance with FAA standards and will provide sufficient detail for the review of proposed design by LCPA Staff and all other appropriate parties.

3.1 Safety Risk Management (SRM) Process– It is anticipated that this project will require a Safety Risk Assessment (SRA) during the design process to understand and mitigate potential safety hazards associated with the construction/implementation of the project, as well as any changes in the runway environment resulting from the project design. This task will entail organization of the appropriate stakeholders to participate in the SRA meeting, and discussion of expectations, process, and goals of the SRA with the airport staff. It is understood that the FAA will facilitate a safety risk assessment meeting at the airport with the attendees identified in the pre-planning. KH will prepare meeting materials and exhibits to be used as part of the SRA. This SRA will utilize the FAA Office of Airports Safety Risk Management (SRM) process as described in FAA Order 5200.11 and FAA AC 150/5200-37A. The SRA will be scheduled for up to eight hours, held over the course of two (2) consecutive days in four (4) hour sessions, if one 4-hour session is deemed insufficient based on SRA pre-planning with airport staff. Following the SRA, the consultant will prepare the documentation describing the SRM process utilized, hazards that were identified and credible outcomes, risk assessment results, and any potential mitigation actions and responsibilities. Although this process will begin in the 60% Phase, it is anticipated it will continue into the subsequent phase(s) until the process is complete.

3.2 NAVAID Design Data - A requirement for the Airports-GIS data submission is to include navigational aid (NAVAID) design data. NAVAIDs for the Temporary Runway 5-23, include Precision Approach Path Indicators (PAPIs) and Runway End Identifier Lights (REILs) for both temporary runway ends. KH will perform preliminary analysis to determine locations of the temporary visual NAVAIDs to be used for the Airports-GIS data submission (Task 3.3).

- Preliminary NAVAID Locations – KH will collect available existing electrical drawings, review existing grading and electrical drawings and define preliminary PAPI and REIL locations based on that existing data.

3.3 Flight Procedure Development and Submittal – KH will perform a historical weather analysis. This analysis will be used to justify the meteorological need for instrument approach procedures at RSW during the runway reconstruction project. This data will determine what minimums are needed for the Airport to remain in operation.

KH will use the FAA Terminal Area Route Generation and Traffic Simulation (TARGETS) software to develop preliminary instrument approach procedures for the temporary runway configuration(s). KH will provide the FAA with the native TARGETS files and outputs from TARGETS to assist the FAA in development of temporary procedures for the selected approach. The following procedures will be developed:

- RNAV (GPS) approaches to both temporary runway ends.
- VOR/DME or TACAN to temporary east end

Obstacles collected in Task 2.12 will be analyzed in the development of the temporary procedures. Should there be obstacles that prevent similar approach minima as existing conditions, these will be identified for potential mitigation by the LCPA or others.

Deliverables:

- Draft procedures to the LCPA Development Division, Airport Operations and RSW ATCT Team prior to submission for internal discussion

- 3.4 Draft Construction Safety and Phasing Plan (CSPP)** – KH will prepare a draft CSPP. KH will coordinate the project construction phasing and sequencing plan with LCPA Staff. Construction phasing will evaluate runway occupancy time using REDIM. The CSPP will recognize key dates within the construction schedule including transitions to the temporary runway and transition from the temporary runway, and runway closure procedures. During this time, it is anticipated that stakeholder engagement (FAA, ATCT, Tenants, Executive Airport Staff and Air Carriers) will be needed. KH will prepare needed exhibits, power points, etc. The CSPP will supplement the technical specifications and serve as a guide for the selected Contractor when preparing the Safety Plan Compliance Document (SPCD). KH will submit the final CSPP to LCPA and FAA. The CSPP will be used extensively in the SRA Panel (Task 3.1).
- 3.5 Draft Engineer's Report** – KH will develop a draft engineer's report to be submitted to LCPA. The report will discuss the work product in greater detail. The document will include a discussion of the rationale for selection of various design elements such as utility investigations, permitting, pavement design, drainage, construction sequencing, etc. This report will include pertinent documents in support of direction provided and decisions made by LCPA, the Design Team, and/or other pertinent authorities.
- 3.6 Safety Area Determination** – KH will prepare a Safety Area Determination in accordance with FAA Order 5200.8. KH will coordinate this effort with RSW's Master Planner. Data will be collected and recorded on the appropriate forms provided in the Order. KH will submit the data to FAA to obtain FAA approval. Improvements to RSA recommended by FAA via the approval process will be discussed with the LCPA and incorporated into the design. A Safety Area Determination will be prepared for Runway 6-24 and Temporary Runway 5-23.
- 3.7 Constructability Review** - KH will conduct an in-house constructability review of the 60 percent submittal prior to submission to LCPA. This review will include LCPA's CM and KH staff with construction experience that are familiar with aviation work. Staff will review the plans for constructability and new construction related items. Bluebeam software will be used by KH to gather all comments in one general location. This

information will be kept by KH for records.

3.8 Drawing Preparation – KH will prepare Engineering drawings in accordance with specific format requirements. The Engineering drawings prepared under the 30% phase will be refined and expanded to the 60% level. Drawings prepared up to this phase will include:

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Cargo Airfield Marking Plans (2)

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 RVR Foundation Plan (3)
 Glide Slope Tower and Shelter Grounding Details (2)

3.9 General Conditions and Technical Specifications – KH will prepare 60% general conditions and technical specifications. Specifications will follow FAA format using unit cost where applicable. All technical specifications shall conform to the latest FAA Advisory Circular. Changes to the specifications will be identified by strike-through and bold-italic text.

3.10 Project Quantities and Engineer's Opinion of Probable Construction Costs (OPCC) – KH will determine project quantities for items of work. KH will prepare an OPCC under this task to include project quantities derived from both plan takeoffs and assumed quantities for known items of work. The cost estimate will be broken-out into unit cost according to the anticipated pay items. Connico will evaluate KH's OPCC for market conditions, material and labor availability. KH has no control over the cost of labor, materials, equipment, or over the contractor's methods of determining prices or competitive bidding or market conditions. The OPCC will be based on the information known to KH at the time of preparation and represent KH's judgment as a design professional familiar with the construction industry. KH cannot and does not guarantee that proposals, bids, or actual construction costs will not vary from its opinions of probable cost. At this time, the OPCC will carry an appropriate contingency.

3.11 Quality Control - KH will conduct an in-house quality control review of the 60 percent submittal prior to submission to LCPA. The quality control review will include engineers with no involvement in the project that will be matched to their specific expertise to review the project efficiently. Bluebeam software will be used to gather all comments in one general location. This information will be kept for records.

3.12 Deliverable – KH will package and deliver the following to the LCPA at the complete of the Engineering Design Phase, 60%

- 3 bound hard copies and PDF of 11x17 plans

- 1 hard copy and PDF of Technical Specifications
- 1 hard copy and PDF of DRAFT CSPP
- 1 hard copy and PDF of DRAFT Engineer's Report
- 1 hard copy and PDF of Engineer's Estimate of Probable Construction Costs

Task 4 – Construction Document Phase, 90%

The information prepared during the 60% phase will be reviewed and refined during the 90% Design phase. This phase will encompass the professional services required to furnish the LCPA with a set of 90% documents, including technical specifications, 90% drawings, construction phasing and safety plans, engineer's report, draft project manual and cost estimates to reflect any adjustments to the project since the previous phase. These documents will be developed and prepared in accordance with FAA standards and will provide sufficient detail for the review of proposed design by the LCPA Staff and all other appropriate parties.

4.1 Airspace Obstruction Evaluation, 7460-1 - In accordance with Title 14 of the Code of Federal Regulations (CFR 14), Part 77, KH will compile the necessary data to prepare the 7460-1's. LCPA will submit to the FAA for the Obstruction Evaluation/Airport Airspace Analysis (OE/AAA). KH will coordinate with LCPA Staff for filing of the 7460-1(s) by LCPA through OE/AAA.

4.2 Drawing Preparation – Engineer drawings prepared under the 60% phase will be refined and expanded to the 90% level. Drawings prepared up to this phase include:

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 PAPI Site Plans (3)
 Glide Slope Foundation, Tower and Shelter Plan (6)
 RVR Foundation Plan (3)
 Glide Slope Tower and Shelter Grounding Details (2)

- 4.3 General Conditions and Technical Specifications** – KH will prepare 90% general conditions and technical specifications. Specifications will follow FAA format using unit cost where applicable. All technical specifications shall conform to the latest FAA Advisory Circular. Changes to the specifications will be identified by strike-through and bold-italic text.

- 4.4 Final Construction Safety and Phasing Plan (CSPP)** – KH will prepare the final CSPP. KH will coordinate the project construction phasing and sequencing plan with the LCPA Staff. During this time, it is anticipated that stakeholder engagement (FAA, ATCT, Tenants, Executive Airport Staff, Air Carriers, General Aviation corporate, cargo operators, military, etc.) will be needed. KH will prepare needed exhibits, power points, etc. The CSPP will supplement the technical specifications and serve as a guide for the selected Contractor when preparing the Safety Plan Compliance Document (SPCD). KH will submit the final CSPP to the LCPA for review, and LCPA will submit to the FAA.
- 4.5 Final Engineer's Report** – KH will submit the final engineer's report to the LCPA. The report will discuss the work product in greater detail. The document will include a discussion of the rationale for selection of various design elements such as utility investigations, permitting, pavement design, drainage, construction sequencing, etc. This report will include pertinent documents in support of direction already provided and decisions already made by the LCPA, our Team, and/or pertinent authorities.
- 4.6 Project Quantities and Engineer's Opinion of Probable Construction Costs (OPCC)** – KH will determine project quantities for items of work. KH will prepare an OPCC under this task to include project quantities derived from both plan takeoffs and assumed quantities for known items of work. The cost estimate will be broken-out into unit cost according to the anticipated pay items. Connico will evaluate KH's OPCC for market conditions, material and labor availability. KH has no control over the cost of labor, materials, equipment, or over the contractor's methods of determining prices or competitive bidding or market conditions. The OPCC will be based on the information known to KH at the time of preparation and represent KH's judgment as a design professional familiar with the construction industry. KH cannot and does not guarantee that proposals, bids, or actual construction costs will not vary from its opinions of probable cost. At this time, the OPCC will carry an appropriate contingency.
- 4.7 Quality Control** - KH will conduct an in-house quality control review of the 90 percent submittal prior to submission to LCPA. The quality control review will include engineers with no involvement in the project that will be matched to their specific expertise to review the project efficiently. Bluebeam software will be used to gather all comments in one general location. This information will be kept for records.
- 4.8 Constructability Review** - KH will conduct an in-house constructability review of the 90 percent submittal prior to submission to LCPA. This review will include LCPA's CM and KH staff with construction experience that are familiar with aviation work.. Staff will review the plans for constructability and new construction related items. Bluebeam software will be used by the Consultant to gather all comments in one

general location. This information will be kept by KH for records.

4.9 Deliverable – KH will package and deliver the following to the LCPA at the complete of the Engineering Design Phase, 90%

- 3 bound hard copies and PDF of 11x17 plans
- 1 hard copy and PDF of Technical Specifications
- 1 hard copy and PDF of FINAL CSPP
- 1 hard copy and PDF of FINAL Engineer's Report
- 1 hard copy and PDF of Engineer's Estimate of Probable Construction Costs
- Autocad/Civil 3D files

Task 5 – Bid Documents, 100%

During this phase final bid documents will be prepared. All comments received from the LCPA will be addressed to complete the bid documents.

- 5.1 Drawing Preparation** – Further refinement of the 90% plans will continue including final comments received from the Authority.
- 5.2 General Conditions and Technical Specifications** – At this time, KH will prepare the final technical specifications ready for bid. Specifications will follow FAA format using unit cost where applicable. All technical specifications shall conform to the latest FAA Advisory Circular. Changes to the specifications will be identified by strike-through and bold-italic text.
- 5.3 Project Manual (Front End)** – KH will assist the LCPA Staff in preparation of the front end of the project manual. This includes preparing descriptive paragraphs of the project and work, construction sequencing narrative, bid schedule, drawing list, spec list, etc. KH will evaluate the Authority standard provisions against FAA's standard provision to determine potential conflicts. All front end documents will be provided electronically to KH by the LCPA for inclusion in the overall Project Manual.
- 5.4 Project Quantities and Engineer's Opinion of Probable Construction Costs (OPCC)** – KH will determine project quantities for items of work. KH will prepare an OPCC under this task to include project quantities derived from both plan takeoffs and assumed quantities for known items of work. The cost estimate will be broken-out into unit cost according to the anticipated pay items. Connico will evaluate KH's OPCC for market conditions, material and labor availability. KH has no control over the cost of labor, materials, equipment, or over the contractor's methods of determining prices or

competitive bidding or market conditions. The OPCC will be based on the information known to KH at the time of preparation and represent KH's judgment as a design professional familiar with the construction industry. KH cannot and does not guarantee that proposals, bids, or actual construction costs will not vary from its opinions of probable cost. At this time, the OPCC will not carry a contingency. KH will prepare a bid tabulation form based on the final OPCC.

- 5.5 Pavement Classification Rating (PCR) Determination** – KH will perform PCR calculations for Runway 6-24, Taxiway A, taxiway connectors between Runway 6-24 & Taxiway A, and taxiway connectors between Runway 6-24 And Taxiway F using the FAARFIELD 2.0 software while adhering to the FAA AC 150/5335-5D "Standardized Method of Reporting Airport Pavement Strength – PCR." The analysis will be implementing the Technical Method as outlined in the Advisory Circular. KH will rely on the detailed aircraft traffic fleet mix data (aircraft type, weight, annual departures, growth percentage, and distribution on the pavement facilities), CBR values, and NDT established under Task 2. KH will assume standard material strengths as defined in the advisory circular. A technical memorandum will be prepared that outlines the data used and summarizes the results.
- 5.6 Modifications to Air Traffic Control Tower (ATCT), Airfield Lighting Control Monitoring System (ALCMS) and Vault** – KH will prepare the graphic modifications to the RSW's ALCMS as a result of the modifications to the airfield's lighting system as needed. The graphic will be in CAD format and delivered to the LCPA. In turn, the LCPA will coordinate directly with their vender for integrating the graphic into RSW's ALCMS.
- 5.7 Quality Control** - KH will conduct an in-house quality control review of the Final submittal prior to submission to LCPA. The quality control review will include engineers with no involvement in the project that will be matched to their specific expertise to review the project efficiently. Bluebeam software will be used to gather all comments in one general location. This information will be kept for records.
- 5.8 Deliverable** – KH will package and deliver the following to the LCPA at the complete of the Bid Documents, 100%
- 3 bound hard copies and PDF of 11x17 plans
 - 1 hard copy and PDF of Technical Specifications
 - 1 hard copy and PDF of Engineer's Estimate of Probable Construction Costs
 - 1 hard copy and PDF of PCR Technical Memorandum
 - Autocad/Civil 3D files

Task 6 – Bidding Services

- 6.1 Pre Bid Meeting** – KH will prepare exhibits relative to the project, attend and present at the pre bid meeting. KH will participate in a site walk. This meeting will be chaired and managed by the LCPA Staff.
- 6.2 Preparation of Addenda** – KH will coordinate with the team to answer questions from bidders and prepare addenda material including any change to the final Engineer's Estimate of Probable Construction Costs, as required. KH will provide the LCPA addenda in electronic format. the LCPA will make available these documents to potential bidders and plan rooms. At the conclusion of the bidding services and prior to construction, KH will prepare a complete set of conformed contract documents for distribution. These documents will reflect all modifications to the plans and specifications identified in the bid addenda.
- 6.3 Evaluation of Bids and Contract Award** – KH will attend the bid opening, prepare the bid tabulation and provide the evaluation of the bids to determine the lowest and most responsive bidder. Documentation provided by each bidder will be examined for completeness and compliance with bidding instructions.
- 6.4 Conformed Documents** – The project specifications and construction plans as prepared for bidding will be updated, "conformed", to include the following items from the bidding phase; pre-bid meeting notes, fully executed contract, bidding addendums, bidders submittal items and construction plan sheets for distribution to LCPA, FAA, and Contractor
- 6.5 Deliverable:**
- Electronic PDF of conformed plans, technical specifications and front-end documents
 - 3 bound 22"x34" paper plots of the conformed construction plans signed and sealed by a FL Professional Engineer
 - 3 bound 11"x17" paper plots of the conformed construction plans signed and sealed by a FL Professional Engineer
 - 5 bound paper copies of conformed technical specifications and front end documents

TOTAL NEGOTIATED LUMP SUM FEE FOR TASKS 1 THROUGH 6: \$5,261,280.00

EXCLUSIONS/ADDITIONAL SERVICES:

1. Threatened and endangered species investigations and mitigation services are excluded. (i.e. burrowing owls, gopher tortoises, etc.) and would be considered additional services.
2. This Scope of Services has been developed based on a single construction contract. Subdividing the program into multiple bid packages will be considered additional services and a scope and fee negotiated at the appropriate time. Preparation of multiple bid packages will be considered additional services.
3. Environmental Contamination Assessment and cleanup are excluded. Effort towards Environmental Contamination Assessment will be considered additional services.
4. It is assumed this project will be reviewed and approved as a CATEX. Any effort towards a Finding of No Significant Impact or Environmental Assessment will be considered additional services.
5. Construction administration services are excluded.
6. Quality acceptance testing services are excluded.
7. Construction management and inspection services are excluded.
8. Preparation of bid alternatives (add or deduct) are excluded and would be considered additional services.
9. All MOSs associated with design standards expire no later than 5 years from the approved date. Services to apply for an extension are excluded and would be considered additional services.
10. KH acting as the facilitator for the SRM process is excluded. LCPA will be required to contract directly with a SRM facilitator.
11. Design of a temporary Localizer and Glide Slope are excluded and would be considered additional services.
12. PCR determinations for the Taxiway Connectors are excluded and would be included as additional services.
13. KH is not a FAA certified procedure design firm. Procedure design will be performed by the FAA. Task 3.3 is to determine the feasibility of implementing temporary procedures and obstacles that may require mitigation by the LCPA.
14. Obstacle mitigation design is excluded and would be considered additional services.
15. Negotiations with property owners for obstacle mitigation, including but not limited to, right of entry agreements, obstacle mitigation compensation agreements, or aviation easements are excluded and would be considered additional services.
16. Environmental reviews and analysis beyond what is needed for a CATEX are considered additional services and will be defined under a separate Contract Amendment.
17. Procuring a third party for procedure design and flight checks will be considered additional services.

END