

II. FISCAL IMPACT ANALYSIS

A. Five Year Summary of Fiscal Impact:

Fiscal Years	2023	2024	2025	2026	2027
Capital Expenditures	\$1,175,707				
Operating Costs					
External Revenues (Grants)					
Program Income (County)					
In-Kind Match (County)					
NET FISCAL IMPACT	\$1,175,707				

ADDITIONAL FTE
POSITIONS (Cumulative) _____

Is Item Included in Current Budget? Yes _____ No _____
Does this item include the use of federal funds? Yes _____ No _____

Budget Account No: Fund 4111 Department 121 Unit A107 Object 6505
4111 121 A342-448 6504
4111 121 A394-445 6504
 Reporting Category _____

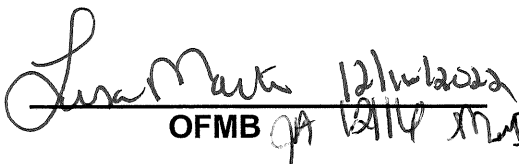
B. Recommended Sources of Funds/Summary of Fiscal Impact:

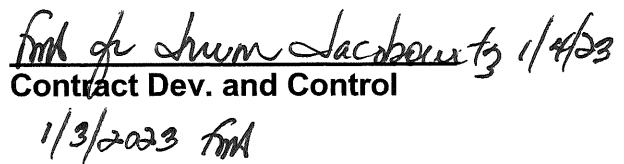
Approval of this item will result in total project cost of \$1,175,706.57; of which \$355,917 is in the current budget. A transfer from Reserves in the amount of \$819,790 is being requested.

C. Departmental Fiscal Review: 

III. REVIEW COMMENTS

A. OFMB Fiscal and/or Contract Development and Control Comments:


OFMB QA 12/14/2022 12/16


Contract Dev. and Control
1/3/2023 fm

B. Legal Sufficiency:


Assistant County Attorney

C. Other Department Review:

Department Director

REVISED 11/17

(THIS SUMMARY IS NOT TO BE USED AS A BASIS FOR PAYMENT)



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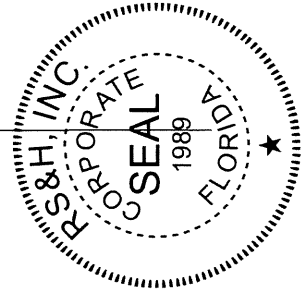
**CORPORATE RESOLUTION
AUTHORIZING SIGNATORY FOR
PALM BEACH COUNTY CONTRACTS**

I, John J. Bottaro, the undersigned Corporate Secretary of RS&H, Inc., a Florida Corporation (the "Corporation"), hereby certify that: The Corporation is duly organized and existing under the laws of the State of Florida and the following is a true, accurate and complete transcript of a resolution contained in the minute book of the Board of Directors of said Corporation duly held on the 5th day of May, 2021, at which meeting there was present and acting throughout a quorum with full power and authority to adopt this resolution and confer the powers granted to the person hereinafter described, and that the proceedings of said meeting were in accordance with the charter and by-laws of said Corporation, and that said resolution has not been amended or revoked and is in full force and effect:

RESOLVED, that Rodney L. Bishop, Jr., Senior Vice President of the Corporation, is hereby authorized and empowered to execute in the name of the Corporation all proposals, agreements, supplements, contracts, and other documents he may deem necessary or appropriate, in connection with Palm Beach County, Florida.

IN WITNESS WHEREOF, I have executed my name as Corporate Secretary and affixed the seal of the Corporation this 13th day of May, 2021.

DocuSigned by:
John Bottaro
B145939C0B964A5...
JOHN J. BOTTARO
Corporate Secretary



**AMENDMENT NO. 6 TO CONTRACT
BETWEEN
PALM BEACH COUNTY DEPARTMENT OF AIRPORTS
AND
RS&H, INC.
FOR
FOR CONSULTING / PROFESSIONAL SERVICES
AT
PALM BEACH COUNTY AIRPORTS**

This Amendment No. 6 to the Contract is made as of the _____ day of _____, 2023, by and between **Palm Beach County**, a Political Subdivision of the State of Florida, by and through its Board of Commissioners, hereinafter referred to as the **COUNTY**, and **RS&H, Inc.**, [] an individual, [] partnership, [X] a corporation authorized to do business in the State of Florida, hereinafter referred to as the **CONSULTANT**, whose Federal Tax I.D. number is 59-2986466.

WITNESSETH

WHEREAS, on May 7, 2019, the COUNTY entered into an Agreement (R2019-0612) with the CONSULTANT for the CONSULTANT to provide Consulting / Professional Services for the Palm Beach County Department of Airports at Palm Beach County Airports (PBI, F45, LNA, & PHK); and

WHEREAS, on May 5, 2020, the COUNTY entered into an Amendment No. 1 (R-2020-0414) with the CONSULTANT to provide additional professional services for the Department of Airports, Palm Beach County, in accordance with Article 26 of the original Agreement; and

WHEREAS, on October 20, 2020, the COUNTY entered into an Amendment No. 2 (R-2020-1607) with the CONSULTANT to provide additional professional services for the Department of Airports, Palm Beach County, in accordance with Article 26 of the original Agreement; and

WHEREAS, on May 4, 2021, the COUNTY entered into an Amendment No. 3 (R-2021-0576) with the CONSULTANT to exercise the first one (1) year renewal option for the continuation of services; and

WHEREAS, on June 15, 2021, the COUNTY entered into an Amendment No. 4 (R-2021-0844) with the CONSULTANT to provide additional professional services for the Department of Airports, Palm Beach County, in accordance with Article 26 of the original Agreement; and

WHEREAS, on March 22, 2022, the COUNTY entered into an Amendment No. 5 (R-2022-0263) with the CONSULTANT to exercise the second and final one (1) year renewal option for the continuation of services and to provide additional professional services for the Department of Airports, Palm Beach County, in accordance with Article 26 of the original Agreement; and

RS&H, INC.
NOVEMBER 2022

AMENDMENT 6 TO R2019-0612
1 CONTRACT FOR CONSULTING/PROFESSIONAL SERVICES

WHEREAS, Article 26 of the Contract requires an amendment when the parties are able to define additional services and the parties have now defined those services,

NOW THEREFORE, in consideration of the mutual covenants herein contained, and such other good and valuable consideration, the receipt of which the parties hereby acknowledge, the parties agree to the following terms and conditions:

1. The parties hereby agree to amend the Contract to include the Scope of Services and Fees as outlined in Exhibit A. The total amount to be paid by the COUNTY to the CONSULTANT for professional services, including any out of pocket expenses, shall not exceed One Million, One-Hundred Seventy-Five Thousand, Seven Hundred Six Dollars and Fifty-Seven Cents (\$1,175,706.57) for the services in Amendment No. 6 to the original Contract.
2. Except as specifically amended herein, all other terms and conditions of the Contract shall remain in full force and effect.

REMAINDER OF PAGE INTENTIONALLY LEFT BLANK

IN WITNESS WHEREOF, the parties have caused the Sixth Amendment to the Contract to be signed by the Mayor of the Board of County Commissioners and the Seal of said Board to be fixed hereto and attested by the Clerk of said board, and the CONSULTANT, RS&H, Inc., has caused these presents to be signed in its corporate name by its duly authorized officer (*Name*) Rodney L. Bishop, (*Title*) Executive Vice President - Infrastructure, acting on behalf of said CONSULTANT, and the Seal of said CONSULTANT to be affixed hereto and attested by the Secretary of said CONSULTANT, the day and year first written above.

ATTEST:

PALM BEACH COUNTY, FLORIDA

**JOSEPH ABRUZZO
CLERK OF THE COUNTY COURT
AND COMPTROLLER**

BOARD OF COUNTY COMMISSIONERS

By: _____
Deputy Clerk

By: _____
Gregg K. Weiss, Mayor

WITNESS:

CONSULTANT:

DocuSigned by:
Shelly McLane
E1F054861E02496...
SIGNATURE

RS&H, Inc.
COMPANY NAME

Shelly McLane
Name (type or print)

DocuSigned by:
Rodney Bishop
1402FF8199E0486...
Signature

Rodney L. Bishop
Name (type or print)

**APPROVED AS TO FORM
AND LEGAL SUFFICIENCY**

Executive Vice President - Infrastructure
Title

BY: *Anne Helgert*
County Attorney

(Corporate Seal)

**APPROVED AS TO TERMS
AND CONDITIONS**

By: *Laura Becker*
Department Director

AMENDMENT NO 6 INDEX

CERTIFICATE OF INSURANCE

EXHIBIT A: AMENDMENT NO. 6

EXHIBIT A-1 – Task I-22-PBI-R-027: Not Used

EXHIBIT A-2 – Task I-22-PBI-R-028: Switchgear Replacement Phase 2

EXHIBIT A-3 – Task I-22-PBI-R-029: Concourse B Expansion – Dual Package Development

EXHIBIT A-4 – Task III Services

EXHIBIT B: DETAILED FEES, EXPENSES AND PAYMENTS

EXHIBIT B-I: Summary of Fees

EXHIBIT B-II: Schedule of Payments

EXHIBIT C – PROPOSED SCHEDULES

EXHIBIT D – DISADVANTAGED BUSINESS ENTERPRISE COMPLIANCE

CERTIFICATE OF INSURANCE



**Palm Beach County
Compliance Summary Report**

Vendor Number	Vendor Name	AM Best Rating	Insurance Carrier	Policy #	Eff. Date	Exp. Date	Coverage	Contract Number	Contract Name
DX00000525	RS&H, Inc.	Modified	Compliant					DOA 18-2A	Consulting/Professional Services
		A+g , XV	Zurich American Insurance Company	BAP146956400	6/28/2022	6/28/2023	Auto Liability		
		A+g , XV	American Guarantee and Liability Insurance Company	AUC146955800	6/28/2022	6/28/2023	Excess Liability		
		A , XV	Lloyd's	B0146LDUSA2204895	6/28/2022	6/28/2023	Excess Liability		
		A++g , XV	Travelers Property Casualty Company of America	EX6T35064A22NF	6/28/2022	6/28/2023	Excess Liability		
		A+g , XV	Zurich American Insurance Company of Illinois	GLO146640900	6/28/2022	6/28/2023	General Liability		
		A , XV	Lloyd's	B0146LDUSA2204894	6/28/2022	6/28/2023	Professional Liability		
		A+g , XV	Zurich American Insurance Company	WC146641000	6/28/2022	6/28/2023	Workers Comp		

Risk Profile : Standard - Professional Services
Required Additional Insured : Palm Beach County Board of County Commissioners
Ownership Entity :

EXHIBIT A: AMENDMENT NO. 6

This Amendment No 6 is in accordance with the Contract for Consulting/Professional Services (Agreement R-2019-0612) between Palm Beach County (COUNTY) and RS&H, Inc. (CONSULTANT) dated May 7, 2019.

CERTIFICATE OF INSURANCE

EXHIBIT A: AMENDMENT NO. 6

EXHIBIT A-1 – Task I-22-PBI-R-027: Not Used

EXHIBIT A-2 – Task I-22-PBI-R-028: Switchgear Replacement Phase 2

EXHIBIT A-3 – Task I-22-PBI-R-029: Concourse B Expansion – Dual Package Development

EXHIBIT A-4 – Task III Services

EXHIBIT B: DETAILED FEES, EXPENSES AND PAYMENTS

EXHIBIT B-I: Summary of Fees

EXHIBIT B-II: Schedule of Payments

EXHIBIT C – PROPOSED SCHEDULES

EXHIBIT D – DISADVANTAGED BUSINESS ENTERPRISE COMPLIANCE

EXHIBIT A-1 – Task I-22-PBI-R-027: Not Used

EXHIBIT A-2 – Task I-22-PBI-R-028: Switchgear Replacement Phase 2

Switchgear Replacement - Phase 2 Scope of Work

Version 3.0

October 27, 2022

Palm Beach County (PBC) Department of Airports (DOA)
West Palm Beach, FL

Task Authorization No.: I-22-PBI-R-028

RS&H Project No.: 2006-3101-028

Prepared by RS&H, Inc. at the
direction of PBC DOA.

RS&H

I PROJECT DESCRIPTION

The Airport has requested that RS&H (Consultant) under the Agreement with RS&H for Airport Facilities and System Consulting Services for Palm Beach County Department of Airports Project No. DOA 18-2A provide a scope and fee for replacement of primary electrical components that provide electrical service to the Terminal Complex at Palm Beach International Airport (PBI) (Project).

The following professional disciplines/services/specialties are expected to play a significant role in the development of the Project:

- » Project Management
- » Civil Engineering
- » Architecture
- » Structural Engineering
- » Mechanical Engineering
 - o HVAC
- » Electrical Engineering
- » Low Voltage Systems
- » Cost Estimating

The Consultant design team is made up of the following professionals:

<u>Consultant/Subconsultant</u>	<u>Involvement</u>
RS&H	Project Management, Civil Engineering, Architectural, Structural Engineering, Mechanical Engineering, Low Voltage, MOT (Airside)
Quantum Electrical Engineering, Inc. (QEE)	Electrical Engineering
Connico	Cost Estimating

The Consultant design team in this project will design the replacement of primary electrical components that provide electrical service to the Terminal Complex at Palm Beach International Airport (PBI). This project will provide the design services to support the replacement of primary electrical distribution components as well as needed phasing, sequencing, and temporary power to maintain the operation of the PBI terminal complex.

The following Tasks are included in the Project Scope of Work:

- » Task A: Replacement of the following Terminal Building Switchgear
 - o Perform Electrical Load Testing for a period of thirty (30) days to capture the power electrical characteristics such as apparent power (kilo-volt amperes or kV A), amps, and voltage and power factor at selected circuit breakers. The collect

data for each location will be utilized in the preparation of construction documents.

- Design the replacement of existing Substation "T" (located in Terminal Main Electrical Room).
- Design the replacement of existing medium voltage distribution transformers "T-3" and "T-4", located in Terminal Main Electrical Room.
- Design the replacement of existing Switchboard "ET" and medium voltage distribution transformer "T-7", located in Terminal Main Electrical Room. Includes design of a new Switchboard "ET" in Substation D Electrical Room, new Switchboard "ET2" in the Main Electrical Room and new 4.16kV:480Y/277V stepdown oil filled transformer "T-7". Also includes the replacement of 4.16kV and 480V feeder conductors associated with the switchboard and transformer replacement.
- Design an expansion of the existing 4.16kV emergency distribution system to include new connections to the existing "CP-MV MCC" in Chiller Plant, existing switchboards "BHS3" and "HM3" for the Baggage Handling System and new 480V emergency switchboards "ET" and "ET2" (via new medium voltage transformer "T-7"). Includes the new 4.16kV Switchgear "EPDS2" installed within the Substation "D" Electrical Room, modifications to existing "CP-MV MCC", reprogramming/modifications to generator controls, modifications to switchboards BHS3/HM3 and new 4.16kV medium voltage and 480V feeder conductors associated with the expansion.
- Design the replacement of existing Switchboards "EMT1", "EMT2", "EMT3", "ME2", "MW2", "T", "TL1", "TL2", "TL3", "TT" and "TT7" located in the Terminal Building Electrical Rooms. Includes the replacement of existing upstream and downstream 480V feeder conductors to facilitate the switchboard replacements.
- Design the replacement for panelboards that are labeled as "overdutied" by the 2017 Short Circuit, Device Coordination and Arc Flash Analysis. Includes replacement of panelboard "EMTL1", "EMTL3", "EMTL5", "ETL1", "EL4, and "L1B".
- Design the replacement of circuit breakers for panelboards that are labeled as "overdutied" by the 2017 Short Circuit, Device Coordination and Arc Flash Analysis. Includes replacement of circuit breakers in SWBD "NDP1" and "CNDP" and panelboard "ELFIS.
- Equipment pads may be required to be modified due to new equipment weight and / or footprint. Equipment that does not have pads will be provided with new pads. However, existing conduit trench under substation may preclude installation of pads.

- Expansion of existing energy management system and integration/ reprogramming of the facility management system to accept data from new monitoring points on the energy management system.
- Modification to the AOA fencing for the removal of Pedestrian Gate P-2 during construction to allow for equipment to be brought in and out of the loading dock door.
- Removal and replacement of existing ceilings to facilitate installation of any new conduit raceways
- Confirm if HVAC in main electrical room is adequate to support room for added heat load from new electrical equipment and provide supplemental service if needed.
- Confirm if HVAC in Substation D electrical room is adequate to support room for added heat load from new electrical equipment and provide supplemental service if needed.
- » Task B: Replacement of Concourse A Switchgear
 - Perform Electrical Load Testing for a period of thirty (30) days to capture the power electrical characteristics such as apparent power (kilo-volt amperes or kV A), amps, and voltage and power factor at selected circuit breakers. The collect data for each location will be utilized in the preparation of construction documents.
 - Design the replacement of existing Substation "A", located exterior to Concourse A. Includes new main-tie-main substation with two 13.2kV:480Y/277V stepdown oil-filled transformers, 13.2kV load break switches and 480V distribution breakers. Also includes the replacement of feeder conductors associated with the substation replacement.
 - Design the replacement of existing Switchboard "A", located in Concourse A Electrical Room. Includes the replacement of existing upstream and downstream 480V feeder conductors to facilitate the switchboard replacement.
 - Design the relocation of Panelboard "DP" feeder conductors from the existing Switchboard "A" to Substation "A" to repower Panel "DP" from Substation "A".
- » Task C: Replacement of Concourse B Switchgear Scope of Work
 - Perform Electrical Load Testing for a period of thirty (30) days to capture the power electrical characteristics such as apparent power (kilo-volt amperes or kV A), amps, and voltage and power factor at selected circuit breakers. The collect data for each location will be utilized in the preparation of construction documents.

- Design the replacement for panelboards that are labeled as “overdutied” by the 2017 Short Circuit, Device Coordination and Arc Flash Analysis. Includes replacement of panelboard “B”, “BM”, and “EBL1”.

- » Task D: Replacement of Concourse C Switchgear Scope of Work
 - Perform Electrical Load Testing for a period of thirty (30) days to capture the power electrical characteristics such as apparent power (kilo-volt amperes or kV A), amps, and voltage and power factor at selected circuit breakers. The collect data for each location will be utilized in the preparation of construction documents.
 - Design the replacement of existing Switchboard “ECL” and medium voltage transformer T-8, located in Concourse C Electrical Room. Includes designing a new switchboard with two interlocked main breakers and a new oil filled medium voltage transformer. Also includes the replacement of the existing 4.16kV medium voltage and 480V feeder conductors to facilitate the switchboard and transformer replacements.
 - Design the replacement of existing Switchboard “CT”, located in Concourse C Electrical Room. Includes the replacement of existing upstream and downstream 480V feeder conductors to facilitate the switchboard replacements.
 - Design the replacement for panelboards that are labeled as “overdutied” by the 2017 Short Circuit, Device Coordination and Arc Flash Analysis. Includes replacement of panelboard “C”, “CM”, “ECL1”, “CL1”, “CL2” and “PPCRA”.
 - Confirm if HVAC in Substation C electrical room is adequate to support room for added heat load from new electrical equipment and provide supplemental service if needed.

- » Task E: Replacement of Parking Garage Bldg. 1100 Switchgear Scope of Work
 - Perform Electrical Load Testing for a period of thirty (30) days to capture the power electrical characteristics such as apparent power (kilo-volt amperes or kV A), amps, and voltage and power factor at selected circuit breakers. The collect data for each location will be utilized in the preparation of construction documents.
 - Design the removal of medium voltage transformer “T-P”, located in Parking Garage Bldg. 1100 Electrical Room and designing a new FP&L service for Parking Garage. Includes coordination with FP&L and designing new electrical main breaker and new service conduit/conductor systems.
 - Design the replacement of existing Switchboard “MDP” and “EDP1”, located in Parking Garage Bldg. 1100 Electrical Room. Includes the replacement of existing

480V upstream and downstream feeder conductors associated with the switchboards.

- » Task F: Modification of chiller plant controls to allow chiller to run under emergency power.

Project includes the following Tasks:

- » Phase 3A: 60% Construction Documents
- » Phase 3B: 90% Construction Documents
- » Phase 3C: 100% Construction Documents
- » Phase 4: Bid Documents

Project excludes the following Tasks:

- » Phase 1A: Planning and Programming - Phase was completed in Task I-20-PBI-R-012 Electrical Distribution Report
- » Phase 1B: Conceptual Design - Phase was completed in Task I-20-PBI-R-012 Electrical Distribution Report
- » Phase 2: 30% Construction Documents - Phase was completed in Task I-20-PBI-R-012 Electrical Distribution Report

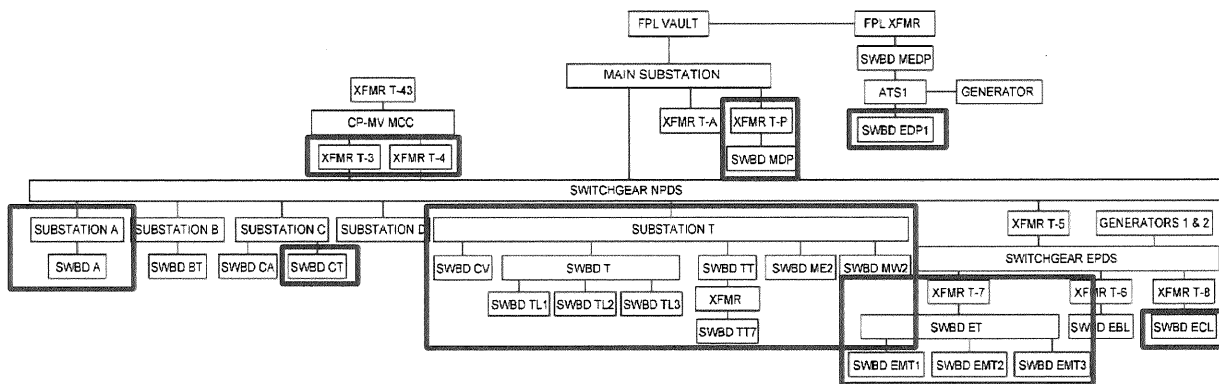


FIGURE 1: PBI EXISTING ELECTRICAL DISTRIBUTION BLOCK DIAGRAM

Funding Expectations – The Planning and Programming Report indicated the estimated construction cost for the Project at approximately \$10-\$11 million, however due to the current market fluctuations it is anticipated to be above the identified amount. The actual cost may vary significantly as the Project design progresses and the scope is further developed. Changes to the project cost may require changes in the Consultant’s efforts and require adjustments to the compensation indicated in this proposal.

Project Duration – The Project’s schedule is defined in the accompanying Project Schedule. The actual schedule may vary significantly as the Project design progresses and the scope is further developed. Changes to the project schedule may require changes in the Consultant’s efforts and require adjustments to the compensation indicated in this proposal.

II PROJECT TASKS

TASK 1 PHASE 3A: 60% CONSTRUCTION DOCUMENTS

Performance of this Task will be based on the report completed in Task I-20-PBI-R-012 Electrical Distribution Report and shall further refine the design and establish the scope, relationships, forms, size and appearance of the project through plans, sections, elevations, details and outline specifications. Specific task breakdowns are as follows:

Task 1.1 Project Kick-Off

The Consultant will participate in a single kickoff meeting at the Airport, attended by members of the Consultant’s team as well as Airport staff that are well versed on this project and able to provide the necessary information to the team. The meeting will define, among others:

- » Project goals and client expectations
- » Describe the methods by which the project will be performed
- » Discuss budget and funding sources
- » Discuss current condition of systems in question
- » Understand other ongoing work that may impact the Project
- » Discuss the design schedule
- » Define invoicing requirements (both for Airport as well as processing those for subconsultants)

Attendees will include the following Consultant team members:

- » Project Manager
- » Architect - Senior
- » Civil Engineer - Senior
- » Mechanical Engineer - Senior
- » Electrical Engineer

The Consultant will provide agenda and meeting minutes.

Task 1.2 Site Inspection

The Consultant shall coordinate the following efforts to be completed by the Electrical Engineer.

The Consultant's Senior Structural Engineer, Senior Mechanical Engineer and Electrical Engineer will visit the site to verify impacted equipment of Task A, B, C & D including physical equipment dimensions, measurements of conduit entrance into equipment along with the terminations in the existing equipment, removal and installation access pathways for equipment, determination if existing feeders are long enough to be re-terminated, phasing of the work for temporary power, and identification of all downstream loads of the existing 480V electrical distribution systems that are being replaced.

Task 1.3 Design Coordination Meetings

The Consultant shall participate, via ZOOM or another virtual program, coordination meetings with the Airport during this stage of document preparation. Two (2) meetings are expected and used as the basis of scope and fee preparation. The intent of the meetings will be to resolve any issues impeding the furthering of the construction documents. Each meeting is anticipated to be (1) one hour.

Attendees at those meetings will include the following Consultant team members:

- » Project Manager
- » Architect - Senior
- » Civil Engineer - Senior
- » Mechanical Engineer - Senior
- » Electrical Engineer

The Consultant will provide agenda and meeting minutes.

Task 1.4 Testing

Consultant (Electrical Engineer) shall perform electrical load testing for a period of thirty (30) days to capture the power electrical characteristics such as apparent power, amps, and voltage and power factor of up to 55 selected circuit breakers. The collect data for each location will be utilized in the preparation of construction documents. A written summary report of the testing results will be submitted to the Airport in pdf format.

Task 1.5 60% Design Document Preparation

Consultant shall prepare drawings, technical specifications, and calculations necessary to effectively identify, evaluate, and resolve Task A, B, C, & D above. Included will be documentation relative to the following disciplines:

Civil Design Development

Design development level documentation of the safety and security, site access, and Contractor laydown areas drawings for the to support SOW identified in Tasks A, B, D, & E above.

Architectural Design Development

Design development level documentation for spaces to support electrical SOW identified in Tasks A, B, C, D, & E above. Included will be development of floor plans and reflected ceiling plans to support conduit installation between electrical equipment.

Structural Design Development

Design development level documentation of any structural systems to support electrical SOW identified in Tasks A, B, C, D, & E above.

Mechanical HVAC Design Development

Design development level documentation of heating, ventilation, air conditioning and building automation system needing to be relocated to support electrical SOW identified in Tasks A, B, C, D, & E above. Included will be drawings documenting that operation of the chiller plant controls will need to be modified to allow it to run under emergency power.

Fire Protection Design Development

Design development level documentation of modification to the existing sprinkler system as applicable to support electrical SOW identified in Tasks A, B, C, & D above.

Electrical Design Development

Design development level documentation for Tasks A, B, C, D, & E above.

- a. Includes design of phasing and extensive temporary wiring and temporary equipment/power systems to maintain operations of Terminal Building during construction.
- b. Includes preliminary short circuit calculations for sizing of electrical equipment withstand ratings for permitting and bidding purposes. Final short circuit calculation, device coordination and arc flash analysis along with arc flash labeling to be completed under CA services, which will be in a separate future proposal.
- c. Includes one-line diagrams, electrical calculations, plan layouts, panel schedules and electrical details.
- d. Includes design meeting all County Standards / Codes and permit requirements.

Low Voltage Design Development

Design development level documentation of security, communication, and premise distribution systems as required to support electrical SOW identified in Task A, B, C, D & E above. Included will be drawings documenting connections of new electrical equipment to the Facilities Management System (FMS) and Energy Management System (Eaton's Campus Dashboard

System). Also, the communications between the generators and the Building Management Systems (BMS) may need to be updated.

MOT Design Development

Design development level documentation of MOT plans as required to support electrical SOW identified in Task E only.

Task 1.6 Quality Control Review

The Consultant shall conduct in-house quality control reviews of this construction document stage submittal. The review shall cover the design plans and technical specifications prior to submittal to the Airport. The Quality Control review will be performed as follows:

- » Independent QC Review – An independent Architect/Engineer not actively involved in the Project will review for readability, accuracy, appearance, and acceptability
- » Independent Technical Peer Review – for each discipline associated with the Project an Architect/Engineer not actively involved will review the documents for alignment with design methodologies, calculations, and code compliance
- » Constructability Review – a comprehensive look at the Project to ensure alignment between plans and specifications, phasing impacts, potential conflicts, etc.
- » Discipline Coordination Review – an interdisciplinary review to ensure coordination of elements between disciplines

Task 1.7 Submittal

The Consultant will prepare and submit the following electronic files to the Airport:

- » Drawings (.pdf)
- » Specifications (.pdf)

Task 1.8 Rough Order of Magnitude (ROM) Opinion of Probable Construction Costs

Task 1.8.1 Design Team ROM

The Consultant will prepare a ROM cost estimate based on the level of completion. In providing estimates of probable construction cost, the Airport understands that the Consultant has no control over the cost or availability of labor, equipment, or materials, or over market conditions or a Contractor's method of pricing, and that the Consultant's estimates of probable construction costs are made on the basis of the Consultant's professional judgement and experience. The Consultant makes no warranty, express or implied, that the bids or the negotiated cost of the Work will not vary from the Consultant's estimate of probable construction cost.

Task 1.8.2 CMAR ROM

The Consultant will review CMAR cost estimate (if completed by CMAR at this Deliverable) and provide comments (if applicable) to the Airport to confirm CMAR has properly captured Project scope of work.

Task 1.9 Design Development Review Meeting

The Consultant shall coordinate and attend one (1) meeting to review Design Development phase submittal. Within two (2) weeks of the meeting, the Airport will provide any additional written comments to the Consultant that may affect the direction of the project.

The following Consultant team members will participate on-site at the Airport:

- » Project Manager
- » Architect - Senior
- » Civil Engineer - Senior
- » Electrical Engineer

The following Consultant team members will participate via ZOOM or another virtual program coordination:

- » Mechanical Engineer - Senior

Design review meeting anticipated to be within two (2) weeks after submittal of CMAR's constructability / cost estimate report to Airport.

The Consultant will provide agenda and meeting minutes.

Task 1.10 Project Management

Consultant will oversee scheduling, resource allocation, monitoring, oversight, direction, and control for all aspects of the team's efforts including assembly and coordination of all documentation.

The Consultant will issue monthly progress reports with each invoice to the Airport project manager during this portion of the project.

TASK 2 PHASE 3B: 90% CONSTRUCTION DOCUMENTS

The 90% Construction Documents Phase will be based on the approved Phase 3A: 60% Construction Documents. The following elements further define the proposed scope of work in the construction document phase. The documents will include Drawings and Specifications that establish, in detail sufficient for production of shop drawings and construction, the configuration

and quality of the materials, components and systems required for the Project. Specific task breakdowns are as follows:

Task 2.1 Prior Phase Drawing/Comment Incorporation

The Consultant shall review all written comments received from the Airport and / or CMAR regarding the prior phase submittal and incorporate applicable comments into plans and specifications during this construction document phase. A written report will be provided on how each received written comment will be incorporated or why it was not applicable.

Task 2.2 Design Coordination Meetings

The Consultant shall participate via ZOOM or another virtual program coordination meetings with the Airport during this stage of document preparation. Two (2) meetings are expected and used as the basis of scope and fee preparation. The intent of the meetings will be to resolve any issues impeding the furthering of the construction documents. Each meeting is anticipated to be (1) one hour.

Attendees at those meetings will include the following Consultant team members:

- » Project Manager
- » Architect - Senior
- » Civil Engineer – Senior
- » Mechanical Engineer - Senior
- » Electrical Engineer

The Consultant will provide agenda and meeting minutes.

Task 2.3 90% Construction Documentation Preparation

Consultant shall prepare drawings, technical specifications and calculations necessary to effectively identify, evaluate, and resolve specific elements of the project for a technically sound and economically complete project. Included will be documentation relative to the following disciplines:

Civil/Site Construction Documents

90% CD design documentation of the safety and security site access, and Contractor laydown areas drawings to support electrical SOW identified in Tasks A, B, D & E above.

Architectural Construction Documents

90% CD design documentation for spaces that support electrical SOW identified in Tasks A, B, C, D & E above. Included will be development of floor plans and reflected ceiling plans to support conduit installation between electrical equipment.

Structural Construction Documents

90% CD design documentation of structural systems that support electrical SOW identified in Tasks A, B, C, D, and E above.

Mechanical HVAC Construction Documents

90% CD design documentation of heating, ventilation, air conditioning and building automation system needing to be relocated to support electrical SOW identified in Task A, B, C, D & E above. Included will be drawings documenting that operation of the chiller plant controls will need to be modified to allow it to run under emergency power.

Fire Protection Construction Documents

90% CD design documentation of modification to the existing fire protection system as applicable to support electrical SOW identified in Task A, B, C, D, & E above.

Electrical Construction Documents

90% CD design documentation for Tasks A, B, C, D & E above.

- a. Includes design of phasing and extensive temporary wiring and temporary equipment/power systems to maintain operations of Terminal Building during construction.
- b. Includes preliminary short circuit calculations for sizing of electrical equipment withstand ratings for permitting and bidding purposes. Final short circuit calculation, device coordination and arc flash analysis along with arc flash labeling to be completed under CA services, which will be in a separate future proposal.
- c. Includes one-line diagrams, electrical calculations, plan layouts, panel schedules and electrical details.
- d. Includes design meeting all County Standards / Codes and permit requirements.

Low Voltage Construction Documents

90% CD design documentation of security, communication, and premise distribution systems as required to support electrical SOW identified in Task A, B, C, D & E above. Included will be drawings documenting connections of new electrical equipment to the Facilities Management System (FMS) and Energy Management System (Eaton's Campus Dashboard System). Also, the communications between the generators and the Building Management Systems (BMS) may need to be updated.

MOT Construction Documents

90% CD design documentation of MOT plans as required to support electrical SOW identified in Task E only.

Task 2.4 Quality Control Review

The Consultant shall conduct in-house quality control reviews of this construction document stage submittal. The review shall cover the design plans and technical specifications prior to submittal to the Airport. The Quality Control review will be performed as follows:

- » Independent QC Review – An independent Architect/Engineer not actively involved in the Project will review for readability, accuracy, appearance and acceptability
- » Independent Technical Peer Review – for each discipline associated with the Project an Architect/Engineer not actively involved will review the documents for alignment with design methodologies, calculations, and code compliance
- » Constructability Review – a comprehensive look at the Project to ensure alignment between plans and specifications, phasing impacts, [potential conflicts, etc.
- » Discipline Coordination Review – an interdisciplinary review to ensure coordination of elements between disciplines

Task 2.5 Submittal

The Consultant will prepare and submit the following electronic files to the Airport:

- » Drawings (.pdf)
- » Specifications (.pdf)

Task 2.6 Rough Order of Magnitude (ROM) Opinion of Probable Construction Costs**Task 2.6.1 Design Team ROM**

The Consultant will prepare a ROM cost estimate based on the level of completion. In providing estimates of probable construction cost, the Airport understands that the Consultant has no control over the cost or availability of labor, equipment, or materials, or over market conditions or a Contractor's method of pricing, and that the Consultant's estimates of probable construction costs are made on the basis of the Consultant's professional judgement and experience. The Consultant makes no warranty, express or implied, that the bids or the negotiated cost of the Work will not vary from the Consultant's estimate of probable construction cost.

Task 2.6.2 CMAR ROM

The Consultant will review CMAR cost estimate (if completed by CMAR at this Deliverable) and provide comments (if applicable) to the Airport to confirm CMAR has properly captured Project scope of work.

Task 2.7 90% Construction Document Review Meeting

The Consultant shall coordinate and attend one (1) meeting to review this Construction Document phase submittal. Within two (2) weeks of the meeting, the Airport will provide any additional written comments to the Consultant that may affect the direction of the project.

The following Consultant team members will participate on-site at the Airport:

- » Project Manager
- » Architect - Senior
- » Civil Engineer - Senior
- » Electrical Engineer

The following Consultant team members will participate via ZOOM or another virtual program coordination:

- » Mechanical Engineer - Senior

Design review meeting anticipated to be within two (2) weeks after submittal of CMAR's constructability / cost estimate report to Airport.

The Consultant will provide agenda and meeting minutes.

Task 2.8 Project Management

Consultant will oversee scheduling, resource allocation, monitoring, oversight, direction, and control for all aspects of the team's efforts including assembly and coordination of all documentation.

The Consultant will issue monthly progress reports with each invoice to the Airport project manager during this portion of the project.

TASK 3 PHASE 3C: 100% CONSTRUCTION DOCUMENTS

The 100% Construction Documents Phase will be based on the approved 90% Design Development Phase documents. Specific task breakdowns are as follows:

Task 3.1 Prior Phase Drawing/Comment Incorporation

The Consultant shall review all written comments received from the Airport and / or CMAR regarding the prior phase submittal and incorporate applicable comments into plans and specifications during this construction document phase. A written report will be provided on how each received written comment will be incorporated or why it was not applicable.

Task 3.2 100% Construction Document Preparation

Consultant shall prepare drawings, technical specifications and calculations necessary to effectively identify, evaluate, and resolve specific elements of the project for a technically sound and economically complete project. Included will be documentation relative to the following disciplines:

Civil/Site Construction Documents

Design of final documentation of the safety and security site access, and Contractor laydown areas drawings to support electrical SOW identified in Tasks A, B, D & E above.

Architectural Construction Documents

Design of final documentation for spaces that support electrical SOW identified in Tasks A, B, C, D & E above. Included will be development of floor plans and reflected ceiling plans to support conduit installation between electrical equipment.

Structural Construction Documents

Design of final documentation of structural systems that support electrical SOW identified in Tasks A, B, C, D & E above.

Mechanical HVAC Construction Documents

Design of final documentation of heating, ventilation, air conditioning and building automation system needing to be relocated to support electrical SOW identified in Task A, B, C, D & E above. Included will be drawings documenting that operation of the chiller plant controls will need to be modified to allow it to run under emergency power.

Fire Protection Construction Documents

Design of final documentation of modification to the existing fire protection system as applicable to support electrical SOW identified in Task A, B, C, D & E above.

Electrical Construction Documents

Design of final documentation for Tasks A, B, C, D & E above.

- a. Includes design of phasing and extensive temporary wiring and temporary equipment/power systems to maintain operations of Terminal Building during construction.
- b. Includes preliminary short circuit calculations for sizing of electrical equipment withstand ratings for permitting and bidding purposes. Final short circuit calculation, device coordination and arc flash analysis along with arc flash labeling to be completed under CA services, which will be in a separate future proposal.
- c. Includes one-line diagrams, electrical calculations, plan layouts, panel schedules and electrical details.
- d. Includes design meeting all County Standards / Codes and permit requirements.

Low Voltage Construction Documents

Design of final documentation of security, communication, and premise distribution systems as required to support electrical SOW identified in Task A, B, C, D & E above. Included will be drawings documenting connections of new electrical equipment to the Facilities Management System (FMS) and Energy Management System (Eaton's Campus Dashboard System). Also, the

communications between the generators and the Building Management Systems (BMS) may need to be updated.

MOT Construction Documents

Design of final design documentation of MOT plans as required to support electrical SOW identified in Task E only.

Task 3.3 Quality Control Review

The Consultant shall conduct in-house quality control reviews of this construction document stage submittal. The review shall cover the design plans and technical specifications prior to submittal to the Airport. The Quality Control review will be performed as follows:

- » Independent QC Review – An independent Architect/Engineer not actively involved in the Project will review for readability, accuracy, appearance and acceptability
- » Independent Technical Peer Review – for each discipline associated with the Project an Architect/Engineer not actively involved will review the documents for alignment with design methodologies, calculations, and code compliance
- » Constructability Review – a comprehensive look at the Project to ensure alignment between plans and specifications, phasing impacts, [potential conflicts, etc.
- » Discipline Coordination Review – an interdisciplinary review to ensure coordination of elements between disciplines

Task 3.4 Submittal

The Consultant will prepare and submit the following electronic files to the Airport:

- » Drawings (.pdf)
- » Specifications (.pdf)

Task 3.5 Rough Order of Magnitude (ROM) Opinion of Probable Construction Costs

Task 3.5.1 Design Team ROM

The Consultant will prepare a ROM cost estimate based on the level of completion. In providing estimates of probable construction cost, the Airport understands that the Consultant has no control over the cost or availability of labor, equipment, or materials, or over market conditions or a Contractor's method of pricing, and that the Consultant's estimates of probable construction costs are made on the basis of the Consultant's professional judgement and experience. The Consultant makes no warranty, express or implied, that the bids or the negotiated cost of the Work will not vary from the Consultant's estimate of probable construction cost.

Task 3.5.2 CMAR ROM

The Consultant will review CMAR cost estimate (if completed by CMAR at this Deliverable) and provide comments (if applicable) to the Airport to confirm CMAR has properly captured Project scope of work.

Task 3.6 100% Construction Document Review Meeting

The Consultant shall coordinate and attend one (1) meeting to review this Construction Document phase submittal. Within two (2) weeks of the meeting, the Airport will provide any additional written comments to the Consultant that may affect the direction of the project.

The following Consultant team members will participate on-site at the Airport:

- » Project Manager
- » Architect - Senior
- » Civil Engineer - Senior
- » Electrical Engineer

The following Consultant team members will participate via ZOOM or another virtual program coordination:

- » Mechanical Engineer - Senior

Design review meeting anticipated to be within two (2) weeks after submittal of CMAR's constructability / cost estimate report to Airport.

The Consultant will provide agenda and meeting minutes.

Task 3.7 Project Management

Consultant will oversee scheduling, resource allocation, monitoring, oversight, direction, and control for all aspects of the team's efforts including assembly and coordination of all documentation.

The Consultant will issue monthly progress reports with each invoice to the Airport project manager during this portion of the project.

TASK 4 PHASE 4: BIDDING PHASE SERVICES

Following the completion of the construction document phase, these efforts will occur during the process of bidding and permitting. Specific tasks are as follows:

Task 4.1 Bid / Permit Documents

Consultant shall prepare drawings and technical specifications from the previous phase submittal to be used by the CMAR for bidding and permitting.

The Consultant shall review all written comments received from the Airport or the CMAR regarding the prior phase submittal and incorporate applicable comments into plans and specifications during this construction document phase. A written report will be provided on how each received written comment will be incorporated or why it was not applicable.

Task 4.2 Inquiries/Clarifications and Addenda

The Consultant will respond to questions, clarifications, RFIs and substitutions submitted to the Consultant from the CMAR and will issue addenda to clarify and modify the project. All addenda will be approved by the Client prior to being issued to CMAR.

Task 4.3 Bid Review and Recommendation

The Consultant shall review the CMAR GMP proposal and provide a recommendation of Award.

Task 4.4 Permitting Clarifications

The Consultant will respond to questions, clarifications, and code considerations from permitting officials; and issue revisions as necessary.

Task 4.5 Conformed Document

The Consultant shall update the Bid / Permit documents to include all required modifications indicated during the bidding and permitting processes. This conformed set of documents will be provided to the contractor and the airport as the baseline for construction activities.

Task 4.6 Project Management and Project Coordination

Consultant will oversee scheduling, resource allocation, monitoring, oversight, direction, and control for all aspects of the team's efforts including assembly and coordination of all documentation.

The Consultant will issue monthly progress reports with each invoice to the Airport project manager during this portion of the project.

III MEETINGS AND PRESENTATIONS

The following meetings and presentations will be attended as part of this proposal:

Task	Presentation / Meeting / Site Visit	Total Meetings	In-Person Meetings/Site Visits	Conference Calls/ Web-Based
1.1	Project Kick-Off	1	1	0
1.2	Site Inspection	1	1	0

1.3	60% CD Design Coordination Meetings	2	0	2
1.8	60% CD Review Meeting	1	1	0
2.2	90% CD Design Coordination Meetings	2	0	2
2.7	90% CD Review Meeting	1	1	0
3.6	100% CD Review Meeting	1	1	0

IV DELIVERABLES

The following primary deliverables will be submitted as part of this proposal:

Task	Deliverable	Information Included	Format
1.6	Ph 3A: 60% CD	Drawings and Project Manual	.pdf
2.5	Ph 3B: 90% CD	Drawings and Project Manual	.pdf
3.4	Ph 3C: 100% CD	Drawings and Project Manual	.pdf
4.1	Ph 4: Bid / Permit Documents	Drawings and Project Manual	.pdf
1.5	Ph 4: Conformed Documents	Drawings and Project Manual	.pdf

The following secondary deliverables will be submitted as part of this proposal:

Task	Item	Format
1.1	Project Kickoff Meeting Agenda & Minutes	TBD
1.7	Comments on CMAR Task 1.6 ROM	TBD
1.8	60% CD Review Meeting Agenda & Minutes	TBD
2.1	Responses to Airport and / or CMAR Task 1.6 comments	TBD
2.6	Comments on CMAR Task 2.5 ROM	TBD
2.7	90% CD Review Meeting Agenda & Minutes	TBD
3.1	Responses to Airport and / or CMAR Task 2.5 comments	TBD
3.5	Comments on CMAR Task 3.4 ROM	TBD
3.6	100% CD Review Meeting Agenda & Minutes	TBD
4.1	Responses to Airport and / or CMAR Task 3.4 comments	TBD

Note: Any revisions required during Task 4.2 or Task 4.4 will be provided.

V PROPOSED PROJECT SCHEDULE

See Schedule Attachment.

VI ASSUMPTIONS AND EXCLUSIONS

The following assumptions have been made for this Scope of Work:

- » Task 1.1 & 1.2 would be completed at the same site visit
- » Fire Protection includes modification / extension of existing fire protection systems as required to support new electrical SOW. Does not include design of new fire protection system.

- » CMAR construction delivery method
- » CMAR would provide cost estimate for Phase 3A: 60% Construction Documents, Phase 3B: 90% Construction Document deliverable.
- » Technical Specification Division 2 thru 33 only required. Front End documents by PBC DOA.
- » RS&H will provide permitting documents to CMAR and CMAR will be responsible for submitting the PZB.
- » Design Phase Review Meetings to be within (2) two weeks of CMAR constructability report submittal. Constructability report assumed to be developed and submitted by CMAR within 60 calendar days of receipt of submittal.
- » Design Phase Deliverable will be no sooner than (1) one month after previous phase CMAR constructability report submittal
- » FAA 7460 Coordination meeting not anticipated to be required
- » Civil site plan review and permitting through Palm Beach County Building Department is not anticipated to be required

The following items are excluded from this Scope of Work unless otherwise noted:

- » LEED Design and Certification
- » Phasing drawings
- » Maintenance of Traffic drawings for Airside work (with the exception of BHS area, this shall be within scope of work)
- » Any soil contaminants and subsurface remediation.
- » Structural engineering scope of work limited to wind loads for any new doors and equipment pad design for new electrical equipment. Modifications to walls to permit electrical equipment installation excluded.
- » Phase 4: Pre-Bid Meeting
- » Phase 4: Fees associated with permitting
- » Phase 5: Construction Administration and RPR Services. Shall be performed under a separate proposal.
- » FAA 7460 Submittal
- » Project Manual Development other than Technical Specifications Div. 2 thru 33
- » Revit modeling of project areas.
- » Fire Alarm System modification.
- » Lightning Protection System modification.
- » RS&H will only perform services/work related in any way to PFAS chemicals or substances possibly containing PFAS chemicals (including but not limited to sampling,

handling and remediating) to the extent the specifically directs, in writing, RS&H to perform such services/work, and RS&H shall not be liable for the nonperformance of such services/work.

VII PROFESSIONAL SERVICES FEE AND FEE TYPE

RS&H will provide the above referenced services for a Fixed Lump Sum Fee of \$819,789.47. See Attachment for a breakdown of costs.

Should scope items/activities/efforts/durations be modified at the request of PBC DOA or need to be adjusted based on design scheduling, the Consultant Team may need to modify the fee to accommodate the changes. Such changes will be compensated through an amendment (through Additional Services requested by the Consultant) to the Task Order or similar vehicle. Effort, fee, and schedule adjustments resulting from a change in scope will be assessed and approved by the Airport prior to the execution of the change.

PALM BEACH COUNTY DEPARTMENT OF AIRPORTS
 Airport Facilities & Systems Planning, Design, Engineering and Construction Management Professional Services

RS&H, INC.
 Switchgear Replacement - Phase 2

<u>Task</u>	<u>Description</u>	<u>Hours</u>	<u>Fee</u>
Task 1	Phase 3A: 60% Construction Documents	474	\$68,484.10
Task 2	Phase 3B: 90% Construction Documents	413	\$63,282.53
Task 3	Phase 3C: 100% Construction Documents	304	\$48,621.89
Task 4	Bidding Phase Services	161	\$23,842.90
		Subtotal RS&H Labor Hours	1,352
		Subtotal RS&H Labor Fee	\$204,231.42
<u>Subconsultants</u>			
	Quantum	4,184	\$535,353.05
	Connico		\$70,200.00
		Subtotal Subconsultant Fee	\$605,553.05
<u>Expenses</u>			
	Travel		\$8,505.00
	Other		\$1,500.00
		Subtotal Expenses	\$10,005.00
		Total Project Fee	\$819,789.47

Switchgear Replacement - Phase 2

		HOURS																			HOURS	TOTAL COST (\$)		
		Principal	Senior Project Manager	Senior Architect	Architect	Intern Architect	Senior Engineer	Intern Engineer	Senior Engineer	Engineer	Intern Engineer	Senior Engineer	Engineer	Intern Engineer	Senior Engineer	Engineer	Intern Engineer	Senior Engineer	Engineer	Intern Engineer			Senior Engineer	Administrative Assistant
		\$349.99	\$237.02	\$246.29	\$122.87	\$55.16	\$246.63	\$96.47	\$246.63	\$151.55	\$96.47	\$246.63	\$151.55	\$96.47	\$246.63	\$151.55	\$96.47	\$246.63	\$151.55	\$96.47	\$246.63	\$99.37		
Task 1	Phase 3A: 60% Construction Documents																							
1.1 / 1.2	Project Kick Off / Site Inspection																							
2	PM		3																				3	\$861.06
2	Civil						3																3	\$739.89
2	Architectural				5																		5	\$629.35
2	Mechanical												4										4	\$986.52
1.3	Design Coordination Meetings																							
	PM		3																					
	Civil						2																	
	Architectural				3																			
	Mechanical													2										
1.4	60% Design Document Preparation																							
	Task A: Replacement of Terminal Building Switchgear																							
	PM																							
	Civil						3	12															15	\$1,897.53
	Architectural			1	5	10																	16	\$1,726.34
	Structural								1	2													3	\$549.73
	Mechanical											2	3	26	4								31	\$3,456.19
	Fire Protection															10							14	\$1,951.22
	Low Voltage																						32	\$3,803.08
	MOT						3	8															11	\$1,511.65
	Task B: Replacement of Concourse A Switchgear																							
	Civil																							
	Architectural			1	5	10																	16	\$1,726.34
	Structural								1	2													3	\$549.73
	Mechanical												2	2	2								6	\$989.30
	Fire Protection															1							4	\$536.04
	Low Voltage																3							
	MOT						3	8																
	Task C: Replacement of Concourse B Switchgear																							
	PM																							
	Architectural			1	5	8																	14	\$1,556.02
	Structural								1	2													3	\$549.73
	Mechanical													2	2	2							6	\$989.30
	Fire Protection															1							4	\$536.04
	Low Voltage																							
	MOT																							
	Task D: Replacement of Concourse C Switchgear																							
	PM																							
	Civil						1	2															3	\$439.57
	Architectural			1	5	8																	14	\$1,556.02
	Structural								1	2													3	\$549.73
	Mechanical													2	3	20							25	\$2,877.31
	Fire Protection																4						14	\$1,951.22
	Low Voltage																							
	MOT																							
	Task E: Replacement of Parking Garage Bldg. 1100 Sw																							
	PM																							
	Civil							2	4														6	\$879.14
	Architectural			1	5	8																	14	\$1,556.02
	Structural								1	2													3	\$549.73
	Mechanical													2	2	2							6	\$989.30
	Fire Protection															1							4	\$536.04
	Low Voltage																							
	MOT																							
	Task F: Modification of Chiller Plant Controls																							
	Mechanical													2	2									
1.5	Quality Control Review																							
	Independent QC Review																							
	Electrical																					4	4	\$986.52
	Independent Technical Peer Review																							
	PM		3																					
	Civil						1	2															3	\$861.06
																							3	\$439.57

Switchgear Replacement - Phase 2

			HOURS																			HOURS	TOTAL COST (\$)							
			Principal	Senior Project Manager	Senior Architect	Architect	Intern Architect	Senior Engineer	Intern Engineer	Senior Engineer	Engineer	Intern Engineer	Senior Engineer	Engineer	Intern Engineer	Senior Engineer	Engineer	Intern Engineer	Senior Engineer	Engineer	Intern Engineer									
			\$249.99	\$207.92	\$218.39	\$125.87	\$88.16	\$258.63	\$96.47	\$246.83	\$151.55	\$96.47	\$246.83	\$151.55	\$96.47	\$246.83	\$151.55	\$96.47	\$246.83	\$151.55	\$96.47			\$246.83	\$151.55					
		Architectural				3	8																11	\$1,058.89						
		Structural										1	2											3	\$549.73					
		Mechanical													2	2	2							6	\$989.30					
		Fire Protection																					1	4	\$536.04					
		Low Voltage																							\$0.00					
		MOT							3	6														9	\$1,318.71					
		Task C: Replacement of Concourse B Switchgear																							\$0.00					
		PM																							\$0.00					
		Architectural				3	8																		11	\$1,058.89				
		Structural										1	2												3	\$549.73				
		Mechanical													2	2	2								6	\$989.30				
		Fire Protection																					1	3	\$536.04					
		Low Voltage																							4	\$536.04				
		Task D: Replacement of Concourse C Switchgear																								\$0.00				
		PM																								\$0.00				
		Civil							1	1															2	\$343.10				
		Architectural				3	8																			11	\$1,058.89			
		Structural											1	2												3	\$549.73			
		Mechanical														4	7	10								21	\$3,012.07			
		Fire Protection																						2	5	\$975.61				
		Low Voltage																									\$0.00			
		Task E: Replacement of Parking Garage Bldg, 1100 Sw																								\$0.00				
		PM																								\$0.00				
		Civil							1	2																3	\$439.57			
		Architectural				3	8																			11	\$1,058.89			
		Structural													2											2	\$303.10			
		Mechanical													2	2	2									6	\$989.30			
		Fire Protection																						1	3	\$536.04				
		Low Voltage																									\$0.00			
		MOT							3	8																11	\$1,511.65			
		Task F: Modification of Chiller Plant Controls																									\$0.00			
		Mechanical														2		2								4	\$686.20			
2.4		Quality Control Review																									\$0.00			
		Independent QC Review																									\$0.00			
		Electrical																									4	\$986.52		
		Independent Technical Peer Review																									\$0.00			
		PM				3																					3	\$861.06		
		Civil							2	2																	4	\$686.20		
		Architectural					2	3																			5	\$868.39		
		Structural											1														1	\$246.63		
		Mechanical														2											6	\$879.14		
		Fire Protection																									7	\$975.61		
		Low Voltage																									12	\$2,058.60		
		MOT																									2	\$343.10		
		Constructibility Review																										\$0.00		
		Electrical																										4	\$986.52	
		Discipline Coordination Review																										\$0.00		
		Architectural																										3	\$37.61	
2.5		Submittal																										\$0.00		
		PM																										1	\$287.02	
		Civil																										3	\$439.57	
		Architectural																										8	\$963.64	
		Structural																										2	\$398.18	
		Mechanical																										3	\$439.57	
		Fire Protection																										4	\$536.04	
		Low Voltage																										3	\$289.41	
		MOT																										2	\$192.94	
2.6		Rough Order of Magnitude (ROM) Opinion of Probable Const																										\$0.00		
		PM																										1	\$287.02	
		Civil																										2	\$343.10	
		Architectural																											7	\$1,120.13
		Structural																										1	\$246.63	
		Mechanical																											2	\$493.26
		Fire Protection																											2	\$493.26

Switchgear Replacement - Phase 2

		HOURS																				HOURS	TOTAL COST (\$)	
		Principal	Senior Project Manager	Senior Architect	Architect	Intern Architect	Senior Engineer	Intern Engineer	Senior Engineer	Engineer	Intern Engineer	Senior Engineer	Engineer	Intern Engineer	Senior Engineer	Engineer	Intern Engineer	Senior Engineer	Engineer	Intern Engineer	Senior Engineer			Administrative Assistant
	Low Voltage																						3	\$739.89
	MOT						1																1	\$246.63
2.7	80% CD Review Meeting																						-	\$0.00
	PM		5																				5	\$1,435.10
	Civil						7																7	\$1,728.41
	Architectural			5																			5	\$1,226.95
	Mechanical										1												1	\$246.63
2.8	Project Management																						-	\$0.00
	PM	8	8																				23	\$6,484.59
	Task Total	8	8	11	35	49	28	37	9	13	-	25	20	38	13	-	32	9	9	25	8	23	413	\$63,282.53
Task 3	Phase 3C: 100% Construction Documents																							
3.1	Prior Phase Drawing / Comment Incorporation																							
	Civil						1	2															3	\$439.57
	Architectural			1	1	2																	4	\$541.58
	Structural								1	1													2	\$398.18
	Mechanical																						6	\$879.14
	Fire Protection										2		4										5	\$782.67
	Low Voltage																					3	6	\$1,033.47
	MOT						1	2															3	\$439.57
3.2	100% Design Document Preparation																						-	\$0.00
	Task A: Replacement of Terminal Building Switchgear																						-	\$0.00
	PM																						-	\$0.00
	Civil																						-	\$0.00
	Architectural			1	1	3																	5	\$626.74
	Structural								1	1													2	\$398.18
	Mechanical											4	7	12									23	\$3,205.01
	Fire Protection																						7	\$975.61
	Low Voltage																						9	\$1,033.47
	MOT						2	4															6	\$879.14
	Task B: Replacement of Concourse A Switchgear																						-	\$0.00
	PM																						-	\$0.00
	Civil																						-	\$0.00
	Architectural			1	1	3																	5	\$626.74
	Structural								1	1													2	\$398.18
	Mechanical										2	2	2										6	\$989.30
	Fire Protection														1								4	\$536.04
	Low Voltage																						-	\$0.00
	MOT						2	4															6	\$879.14
	Task C: Replacement of Concourse B Switchgear																						-	\$0.00
	PM																						-	\$0.00
	Architectural			1	1	3																	5	\$626.74
	Structural										2												2	\$303.10
	Mechanical											2	2	2									6	\$989.30
	Fire Protection														1								4	\$536.04
	Low Voltage																						-	\$0.00
	MOT																						-	\$0.00
	Task D: Replacement of Concourse C Switchgear																						-	\$0.00
	PM																						-	\$0.00
	Civil						1	1															2	\$343.10
	Architectural			1	1	3																	5	\$626.74
	Structural											2											2	\$303.10
	Mechanical																						23	\$3,205.01
	Fire Protection											4	7	12									6	\$879.14
	Low Voltage																						-	\$0.00
	MOT																						-	\$0.00
	Task E: Replacement of Parking Garage Bldg, 1100 SW																						-	\$0.00
	PM																						-	\$0.00
	Civil																						3	\$439.57
	Architectural			1	1	2																	4	\$541.58
	Structural										1	2											3	\$549.73
	Mechanical											2	2	2									6	\$989.30
	Fire Protection																						4	\$536.04
	Low Voltage																						-	\$0.00
	MOT						2	4															6	\$879.14
	Task F: Modification of Chiller Plant Controls																						-	\$0.00

Switchgear Replacement - Phase 2

		HOURS																			HOURS	TOTAL COST (\$)					
		Principal	Senior Project Manager	Senior Architect	Architect	Intern Architect	Senior Engineer	Intern Engineer	Senior Engineer	Engineer	Intern Engineer	Senior Engineer	Engineer	Intern Engineer	Senior Engineer	Engineer	Intern Engineer	Senior Engineer	Engineer	Intern Engineer			Senior Engineer	Administrative Assistant			
		\$243.39	\$247.02	\$245.39	\$132.87	\$55.16	\$246.63	\$26.47	\$246.63	\$151.25	\$26.47	\$246.63	\$151.25	\$26.47	\$246.63	\$151.25	\$26.47	\$246.63	\$151.25	\$26.47	\$246.63	\$26.47	\$246.63	\$26.47		4	\$686.20
3.3	Mechanical																										
	Quality Control Review																										
	Independent QC Review																										
	Electrical																										
	Independent Technical Peer Review																										
	PM		1																								
	Civil						1	2																			
	Architectural				1	2																					
	Structural									1																	
	Mechanical														2												
	Fire Protection														4												
	Low Voltage															2							3				
	MOT																										
	Constructibility Review																										
	Electrical																										
	Discipline Coordination Review																										
	Architectural																										
3.4	Submittal																										
	PM		1																								
	Civil																										
	Architectural				1	1	3																				
	Structural										1	1															
	Mechanical																										
	Fire Protection																										
	Low Voltage																										
	MOT																										
3.5	Rough Order of Magnitude (ROM) Opinion of Probable Const																										
	PM		1																								
	Civil																										
	Architectural				1	3																					
	Structural																										
	Mechanical																										
	Fire Protection																										
	Low Voltage																										
	MOT																										
3.6	100% CD Review Meeting																										
	PM		3																								
	Civil																										
	Architectural																										
	Mechanical																										
	Fire Protection																										
	Low Voltage																										
	MOT																										
3.7	Project Management																										
	PM		4	8																							
	Mechanical																										
	Project Management																										
	Task Total	4	14	9	19	19	22	26	7	10	-	24	20	42	14	-	27	6	6	21	8	6	304			\$48,821.89	
Task 4 Bidding Phase Services																											
4.1	Bid / Permit Documents																										
	PM		1																								
	Civil																										
	Architectural																										
	Structural																										
	Mechanical																										
	Fire Protection																										
	Low Voltage																										
	MOT																										
4.2	Inquiries/Clarifications and Addenda																										
	PM		3																								
	Civil																										
	Architectural																										
	Structural																										
	Mechanical																										
	Fire Protection																										
	Low Voltage																										
	MOT																										
4.3	Bid Review and Recommendations																										
	PM		1																								

Switchgear Replacement - Phase 2

		HOURS																				HOURS	TOTAL COST (\$)	
		Principal	Senior Project Manager	Senior Architect	Architect	Intern Architect	Senior Engineer	Intern Engineer	Senior Engineer	Engineer	Intern Engineer	Senior Engineer	Engineer	Intern Engineer	Senior Engineer	Engineer	Intern Engineer	Senior Engineer	Engineer	Intern Engineer	Senior Engineer			Administrative Assistant
	<i>Civil</i>	\$749.39	\$287.02	\$245.33	\$125.87	\$10.16	\$246.63	\$96.47	\$246.63	\$151.55	\$96.47	\$246.63	\$151.55	\$96.47	\$216.42	\$151.55	\$96.47	\$246.63	\$151.55	\$96.47	\$246.63	\$60.37	1	\$246.63
	<i>Architectural</i>			1			1															1	\$245.39	
	<i>Structural</i>								1													1	\$246.63	
	<i>Mechanical</i>											1										1	\$246.63	
	<i>Fire Protection</i>														1							1	\$246.63	
	<i>Low Voltage</i>																		1	2		3	\$549.73	
4.4	Permitting Clarifications																					-	\$0.00	
	PM		3																			3	\$961.06	
	<i>Civil</i>						1	2														3	\$439.57	
	<i>Architectural</i>			1	3	4																8	\$963.64	
	<i>Structural</i>							1	2													3	\$549.73	
	<i>Mechanical</i>										2		4									6	\$879.14	
	<i>Fire Protection</i>														2					3		5	\$782.67	
	<i>Low Voltage</i>																		1	2	2	5	\$742.67	
4.5	Conformed Document Preparation																					-	\$0.00	
	PM		1																			1	\$287.02	
	<i>Civil</i>						1	2														3	\$439.57	
	<i>Architectural</i>				3	5																8	\$803.41	
	<i>Structural</i>								1	2												3	\$549.73	
	<i>Mechanical</i>										2	2	4									8	\$1,182.24	
	<i>Fire Protection</i>													1					3			4	\$536.04	
	<i>Low Voltage</i>																				2	2	4	\$496.04
	MOT						2															2	\$192.94	
4.6	Project Management and Project Coordination																					-	\$0.00	
	PM	2	3																			6	\$1,923.26	
	Task Total	2	11	2	11	14	5	10	4	6	-	7	2	12	6	-	11	3	8	6	-	6	161	\$23,842.90
TOTAL FOR ALL TASKS (R&H)		20	67	31	116	129	83	130	28	41	-	80	64	152	49	-	107	27	36	80	24	64	1,352	\$ 204,231.42

Switchgear Replacement - Phase 2

Sub Consultant Effort by Major Task Item		Task 1	Task 2	Task 3	Task 4	
Quantum	<i>Electrical</i>					
Task A: Replacement of Terminal Building Switchgear		\$ 231,144.42	\$ 104,145.15	\$ 45,668.76		\$ 380,958.33
Task B: Replacement of Concourse A Switchgear		\$ 31,026.62	\$ 15,899.84	\$ 5,526.87		\$ 52,453.33
Task C: Replacement of Concourse B Switchgear		\$ 5,405.73	\$ 1,765.37	\$ 1,211.53		\$ 8,382.63
Task D: Replacement of Concourse C Switchgear Scope of Work		\$ 30,513.19	\$ 15,374.85	\$ 5,111.49		\$ 50,999.53
Task E: Replacement of Parking Garage Bldg. 1100 Switchgear		\$ 20,878.69	\$ 9,028.76	\$ 3,703.81		\$ 33,611.26
Task A, B, C, D, E					\$ 8,947.97	\$ 8,947.97
Connico	<i>Cost Estimating</i>					
		\$ 27,000.00	\$ 28,600.00	\$ 14,600.00		\$ 70,200.00
TOTAL SUBCONSULTANTS		\$ 318,968.65	\$ 146,213.97	\$ 61,222.46	\$ 8,947.97	\$605,553.05

Switchgear NPDS Replacement Construction Administration

EXPENSES										
TRAVEL										
Task	Description	# Trips	# People	# Days	Airfare \$600	Car \$80	Lodging \$225	Per Diem \$100	Pkg \$0	
1.1 / 1.2	Project Kick Off / Site Inspection	1	4	2	\$0	\$160	\$900	\$800	\$0	\$1,860.00
1.8	60% CD Review Meeting	1	3	2	\$0	\$160	\$675	\$600	\$0	\$1,435.00
2.7	90% CD Review Meeting	1	3	2	\$0	\$160	\$675	\$600	\$0	\$1,435.00
3.6	100% CD Review Meeting	1	3	2	\$0	\$160	\$675	\$600	\$0	\$1,435.00
	Misc. Trips	4	1	2	\$0	\$640	\$900	\$800	\$0	\$2,340.00
SUBTOTAL TRAVEL										\$8,505.00
OTHER EXPENSES										
	Reprographics				\$1,000					\$1,000.00
	Badging				\$250					\$250.00
	Specific Airport Fee				\$0					\$0.00
	Others				\$250					\$250.00
SUBTOTAL OTHER EXPENSES										\$1,500.00
TOTAL EXPENSES										\$10,005.00

ID	Task Mode	Task Name	Start	Finish
1		Design Schedule	Tue 11/22/22	Wed 1/10/24
2		Phase 3A: 60% Construction Documents	Tue 11/22/22	Tue 4/25/23
3		Phase NTP	Tue 11/22/22	Tue 11/22/22
4		Project Kickoff Meeting / Site Inspection	Mon 12/5/22	Mon 12/5/22
5		Development Period	Tue 11/22/22	Fri 1/20/23
6		Detailed Document Checking (DDC)	Fri 1/20/23	Tue 1/24/23
9		Quality Control Process	Tue 1/24/23	Thu 2/2/23
28		Submittal Process	Thu 2/2/23	Tue 2/7/23
34		PM to compile and send Submittal to DOA	Wed 2/8/23	Wed 2/8/23
35		Cost Estimate	Mon 1/23/23	Thu 2/9/23
46		CMAR Constructibility and Estimate Report	Thu 2/9/23	Tue 4/11/23
49		Review Meeting	Tue 4/25/23	Tue 4/25/23
50		Phase 3B: 90% Construction Documents	Tue 4/25/23	Fri 8/25/23
51		Phase NTP	Tue 4/25/23	Tue 4/25/23
52		Development Period	Wed 4/26/23	Wed 5/24/23
53		Quality Control Process	Wed 5/24/23	Tue 6/6/23
75		Submittal Process	Tue 6/6/23	Fri 6/9/23
81		PM to compile and send Submittal to DOA	Mon 6/12/23	Mon 6/12/23
82		Cost Estimate	Thu 5/25/23	Tue 6/13/23
93		CMAR Constructibility and Estimate Report	Tue 6/13/23	Fri 8/11/23
96		Review Meeting	Fri 8/25/23	Fri 8/25/23
97		Phase 3C: 100% Construction Documents	Mon 8/28/23	Wed 12/27/23
98		Phase NTP	Mon 8/28/23	Mon 8/28/23
99		Development Period	Tue 8/29/23	Mon 9/25/23
100		Quality Control Process	Mon 9/25/23	Fri 10/6/23
116		Submittal Process	Fri 10/6/23	Wed 10/11/23
122		PM to compile and send Submittal to DOA	Thu 10/12/23	Thu 10/12/23
123		CMAR Constructibility and Estimate Report	Fri 10/13/23	Wed 12/13/23
126		Review Meeting	Wed 12/27/23	Wed 12/27/23
127		Phase 4: Bidding Phase	Thu 12/28/23	Wed 1/10/24
128		Drawings and Specs electronically released to Contractor	Thu 12/28/23	Wed 1/10/24

QUANTUM

Electrical Engineering, Inc.

October 19, 2022

RS&H, Inc.
Mr. Aaron Jackson, PE, LEED AP
Aviation Structural Engineer
10748 Deerwood Park Blvd. South
Jacksonville, FL 32256

Subject: Electrical Engineering Design Services Fee Proposal for the Palm Beach County Department of Airports (DOA) – Palm Beach International Airport Switchgear Replacement Phase 2.

Dear Aaron:

Quantum Electrical Engineering, Inc. (Quantum) is pleased to provide RS&H an electrical design services fee proposal for the PBIA Switchgear Replacement Phase 2. Proposal is based on the electrical items listed in the *2020 Terminal, Concourses and Parking Garages Electrical Distribution Assessment Report*, *2019 Emergency Power Assessment Report* and *2017 Short Circuit, Device Coordination and Arc Flash Analysis*, in addition to the RS&H Switchgear Replacement Phase 2 Scope of Work dated May 2022. The following Tasks are included in our scope:

Task A: Replacement of Terminal Building Switchgear Scope of Work

- Includes all coordination meetings with RS&H Design Team, DOA, CMR and PB&Z.
- Includes on-site verifications of all impacted equipment including physical equipment dimensions, measurements of conduit entrance into equipment along with the terminations in the existing equipment, removal and installation access pathways for equipment, determination if existing feeders are long enough to be re-terminated, phasing of the work for temporary power, and identification of all downstream loads of the existing 13.2kV, 4.16kV and 480V electrical distribution systems that are being replaced.
- Perform Electrical Load Testing for a period of thirty (30) days to capture the power electrical characteristics such as apparent power (kilo-volt amperes or kV A), amps, and voltage and power factor at selected circuit breakers. The collect data for each location will be utilized in the preparation of construction documents.
- Design the replacement of existing Substation "T", located in Terminal Main Electrical Room. Includes new main-tie-main substation with two 13.2kV:480Y/277V stepdown oil-filled transformers, two combined 13.2kV load break switches and 480V draw-out distribution breakers. Also includes the replacement of 13.2kV and 480V feeder conductors associated with the substation replacement.
- Design the replacement of existing medium voltage distribution transformers "T-3" and "T-4", located in Terminal Main Electrical Room. Includes two new 13.2kV:4.16kV

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stepdown oil filled transformers with medium voltage secondary breakers. Also includes the replacement of existing 13.2kV and 4.16kV medium voltage feeder conductors associated with the transformer replacements.

- Design the replacement of existing Switchboard "ET" and medium voltage distribution transformer "T-7", located in Terminal Main Electrical Room. Includes design of a new Switchboard "ET" in Substation D Electrical Room, new Switchboard "ET2" in the Main Electrical Room and new 4.16kV:480Y/277V stepdown oil filled transformer "T-7". Also includes the replacement of 4.16kV and 480V feeder conductors associated with the switchboard and transformer replacement.
- Design an expansion of the existing 4.16kV emergency distribution system to include new connections to the existing "CP-MV MCC" in Chiller Plant, existing switchboards "BHS3" and "HM3" for the Baggage Handling System and new 480V emergency switchboards "ET" and "ET2" (via new medium voltage transformer "T-7"). Includes the new 4.16kV Switchgear "EPDS2" installed within the Substation "D" Electrical Room, modifications to existing "CP-MV MCC", reprogramming/modifications to generator controls, modifications to switchboards BHS3/HM3 and new 4.16kV medium voltage and 480V feeder conductors associated with the expansion.
- Design the replacement of existing Switchboards "EMT1", "EMT2", "EMT3", "ME2", "MW2", "T", "TL1", "TL2", "TL3", "TT" and "TT7" located in the Terminal Building Electrical Rooms. Includes the replacement of existing upstream and downstream 480V feeder conductors to facilitate the switchboard replacements.
- Design the replacement for panelboards that are labeled as "overdutied" by the 2017 Short Circuit, Device Coordination and Arc Flash Analysis. Includes replacement of panelboard "EMTL1", "EMTL3", "EMTL5", "ETL1", "EL4, and "L1B".
- Design the replacement of circuit breakers for panelboards that are labeled as "overdutied" by the 2017 Short Circuit, Device Coordination and Arc Flash Analysis. Includes replacement of circuit breakers in SWBD "NDP1" and "CNDP" and panelboard "ELFIS".
- Includes design of phasing and extensive temporary wiring and temporary equipment/power systems to maintain operations of Terminal Building during construction.
- Includes preliminary short circuit calculations for sizing of electrical equipment withstand ratings for permitting and bidding purposes. Final short circuit calculation, device coordination and arc flash analysis along with arc flash labeling to be completed under CA services, which will be in a separate future proposal.
- Includes one-line diagrams, electrical calculations, plan layouts, panel schedules and electrical details.
- Includes design meeting all County Standards / Codes and permit requirements.

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Task B: Replacement of Concourse A Switchgear Scope of Work

- Includes all coordination meetings with RS&H Design Team, DOA, CMR and PB&Z.
- Includes on-site verifications of all impacted equipment including physical equipment dimensions, measurements of conduit entrance into equipment along with the terminations in the existing equipment, removal and installation access pathways for equipment, determination if existing feeders are long enough to be re-terminated, phasing of the work for temporary power, and identification of all downstream loads of the existing 13.2kV and 480V electrical distribution systems that are being replaced.
- Perform Electrical Load Testing for a period of thirty (30) days to capture the power electrical characteristics such as apparent power (kilo-volt amperes or kV A), amps, and voltage and power factor at selected circuit breakers. The collect data for each location will be utilized in the preparation of construction documents.
- Design the replacement of existing Substation "A", located exterior to Concourse A. Includes new main-tie-main substation with two 13.2kV:480Y/277V stepdown oil-filled transformers, 13.2kV load break switches and 480V distribution breakers. Also includes the replacement of feeder conductors associated with the substation replacement.
- Design the replacement of existing Switchboard "A", located in Concourse A Electrical Room. Includes the replacement of existing upstream and downstream 480V feeder conductors to facilitate the switchboard replacement.
- Design the relocation of Panelboard "DP" feeder conductors from the existing Switchboard "A" to Substation "A" to repower Panel "DP" from Substation "A".
- Includes design of phasing and extensive temporary wiring and temporary equipment/power systems to maintain operations of Concourse A during construction.
- Includes preliminary short circuit calculations for sizing of electrical equipment withstand ratings for permitting and bidding purposes. Final short circuit calculation, device coordination and arc flash analysis along with arc flash labeling to be completed under CA services, which will be in a separate future proposal.
- Includes one-line diagrams, electrical calculations, plan layouts, panel schedules and electrical details.
- Includes design meeting all County Standards / Codes and permit requirements.

Task C: Replacement of Concourse B Switchgear Scope of Work

- Includes all coordination meetings with RS&H Design Team, DOA, CMR and PB&Z.
- Includes on-site verifications of all impacted equipment including physical equipment dimensions, measurements of conduit entrance into equipment along with the terminations in the existing equipment, removal and installation access pathways for equipment, determination if existing feeders are long enough to be re-terminated,

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phasing of the work for temporary power, and identification of all downstream loads of the existing 480V electrical distribution systems that are being replaced.

- Perform Electrical Load Testing for a period of thirty (30) days to capture the power electrical characteristics such as apparent power (kilo-volt amperes or kV A), amps, and voltage and power factor at selected circuit breakers. The collect data for each location will be utilized in the preparation of construction documents.
- Design the replacement for panelboards that are labeled as “overdutied” by the 2017 Short Circuit, Device Coordination and Arc Flash Analysis. Includes replacement of panelboard “B”, “BM”, and “EBL1”.
- Includes design of phasing and extensive temporary wiring and temporary equipment/power systems to maintain operations of Concourse B during construction.
- Includes preliminary short circuit calculations for sizing of electrical equipment withstand ratings for permitting and bidding purposes. Final short circuit calculation, device coordination and arc flash analysis along with arc flash labeling to be completed under CA services, which will be in a separate future proposal.
- Includes one-line diagrams, electrical calculations, plan layouts, panel schedules and electrical details.
- Includes design meeting all County Standards / Codes and permit requirements.

Task D: Replacement of Concourse C Switchgear Scope of Work

- Includes all coordination meetings with RS&H Design Team, DOA, CMR and PB&Z.
- Includes on-site verifications of all impacted equipment including physical equipment dimensions, measurements of conduit entrance into equipment along with the terminations in the existing equipment, removal and installation access pathways for equipment, determination if existing feeders are long enough to be re-terminated, phasing of the work for temporary power, and identification of all downstream loads of the existing 4.16kV and 480V electrical distribution systems that are being replaced.
- Perform Electrical Load Testing for a period of thirty (30) days to capture the power electrical characteristics such as apparent power (kilo-volt amperes or kV A), amps, and voltage and power factor at selected circuit breakers. The collect data for each location will be utilized in the preparation of construction documents.
- Design the replacement of existing Switchboard “ECL” and medium voltage transformer T-8, located in Concourse C Electrical Room. Includes designing a new switchboard with two interlocked main breakers and a new oil filled medium voltage transformer. Also includes the replacement of the existing 4.16kV medium voltage and 480V feeder conductors to facilitate the switchboard and transformer replacements.
- Design the replacement of existing Switchboard “CT”, located in Concourse C Electrical Room. Includes the replacement of existing upstream and downstream 480V feeder conductors to facilitate the switchboard replacements.

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- Design the replacement for panelboards that are labeled as “overdutied” by the 2017 Short Circuit, Device Coordination and Arc Flash Analysis. Includes replacement of panelboard “C”, “CM”, “ECL1”, “CL1”, “CL2” and “PPCRA”.
- Includes design of phasing and extensive temporary wiring and temporary equipment/power systems to maintain operations of Concourse C during construction.
- Includes preliminary short circuit calculations for sizing of electrical equipment withstand ratings for permitting and bidding purposes. Final short circuit calculation, device coordination and arc flash analysis along with arc flash labeling to be completed under CA services, which will be in a separate future proposal.
- Includes one-line diagrams, electrical calculations, plan layouts, panel schedules and electrical details.
- Includes design meeting all County Standards / Codes and permit requirements.

Task E: Replacement of Parking Garage Bldg. 1100 Switchgear Scope of Work

- Includes all coordination meetings with RS&H Design Team, DOA, CMR and PB&Z.
- Includes on-site verifications of all impacted equipment including physical equipment dimensions, measurements of conduit entrance into equipment along with the terminations in the existing equipment, removal and installation access pathways for equipment, determination if existing feeders are long enough to be re-terminated, phasing of the work for temporary power, and identification of all downstream loads of the existing 13.2kV and 480V electrical distribution systems that are being replaced.
- Perform Electrical Load Testing for a period of thirty (30) days to capture the power electrical characteristics such as apparent power (kilo-volt amperes or kV A), amps, and voltage and power factor at selected circuit breakers. The collect data for each location will be utilized in the preparation of construction documents.
- Design the removal of medium voltage transformer “T-P”, located in Parking Garage Bldg. 1100 Electrical Room and designing a new FP&L service for Parking Garage. Includes coordination with FP&L and designing new electrical main breaker and new service conduit/conductor systems.
- Design the replacement of existing Switchboard “MDP” and “EDP1”, located in Parking Garage Bldg. 1100 Electrical Room. Includes the replacement of existing 480V upstream and downstream feeder conductors associated with the switchboards.
- Includes design of phasing and extensive temporary wiring and temporary equipment/power systems to maintain operations of Concourse C during construction.
- Includes preliminary short circuit calculations for sizing of electrical equipment withstand ratings for permitting and bidding purposes. Final short circuit calculation, device coordination and arc flash analysis along with arc flash labeling to be completed under CA services, which will be in a separate future proposal.

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PBIA Switchgear Replacement Phase 2 Scope & Fee

- Includes one-line diagrams, electrical calculations, plan layouts, panel schedules and electrical details.
- Includes design meeting all County Standards / Codes and permit requirements.

Task 1 Phase 3A: 60% Construction Documents (Task A, B, C, D and E)

Task 1.1: Project Kick-Off

- Includes design kick-off meeting with the DOA and RS&H Design Team.

Task 1.2: Site Inspection

- Site visit to verify impacted equipment of Task A, B, C, D & E.

Task 1.3: Design Coordination Meetings

- Includes design coordination meetings with the DOA and RS&H Design Team. Assume (2) virtual meetings that are anticipated to be (1) hour each.

Task 1.4: Testing

- Testing of the power electrical characteristics of up to 55 circuit breakers.
- Includes a summary report of the testing results.

Task 1.5: 60% Design Document Preparation

- Includes providing 60% design level electrical information reflecting required one-line diagrams, riser diagrams, panel schedules, details and plan layouts for design & specification.
- Includes 60% design level electrical calculations.
- Coordination with the RS&H Team on the electrical requirement of other disciplines and provide 60% Construction Plans and technical specifications for electrical design.

Task 1.6: Quality Control Review

- Includes responses to RS&H QC comments for incorporation into final 60% submittal.
- Includes interdisciplinary review to ensure coordination of elements between disciplines

Task 1.7: Submittal

- Prepare and submit electronic pdf plans and specifications to RS&H.

Task 1.8: Rough Order of Magnitude (ROM) Opinion of Probable Construction Cost

- Include review of 60% Electrical Probable Construction Cost and provide comments to RS&H Team.

Task 1.9: Design Development Review Meeting

- Includes attending 60% design review meeting with DOA and RS&H Team.
- Includes responses to review comments generated by the DOA and RS&H Team.

Task 2 Phase 3B: 90% Construction Documents (Task A, B, C, D and E)

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2755 Vista Parkway, Suite I-9
West Palm Beach, FL 33411
561.210.9224

www.QuantumElectricalEngineering.com

Broward County
5571 N. University Drive, Suite 101
Coral Springs, FL 33067
954.369.5810

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Mr. Aaron Jackson P.E.,
PBIA Switchgear Replacement Phase 2 Scope & Fee

Task 2.1: Prior Phase Drawings/Comment Incorporation

- Includes incorporation of all 60% related comments from the DOA into 90% Construction Documents.

Task 2.2: Design Coordination Meetings

- Includes design coordination meetings with the DOA and RS&H Design Team. Assume (2) virtual meetings that are anticipated to be (1) hour each.

Task 2.3: 90% Construction Documents Preparation

- Includes providing 90% design level electrical information reflecting required one-line diagrams, riser diagrams, panel schedules, details and plan layouts for design & specification.
- Includes 90% design level electrical calculations.
- Coordination with the RS&H Team on the electrical requirement of other disciplines and provide 90% Construction Plans and technical specifications for electrical design.

Task 2.4: Quality Control Review

- Includes responses to RS&H QC comments for incorporation into final 90% submittal.
- Includes interdisciplinary review to ensure coordination of elements between disciplines

Task 2.5: Submittal

- Prepare and submit electronic pdf plans and specifications to RS&H.

Task 2.6: Rough Order of Magnitude (ROM) Opinion of Probable Construction Cost

- Include review of 90% Electrical Probable Construction Cost and provide comments to RS&H Team.

Task 2.7: 90% Construction Document Review Meeting

- Includes attending 90% design review meeting with DOA and RS&H Team.
- Includes responses to review comments generated by the DOA and RS&H Team.

Task 3 Phase 3C: 100% Construction Documents (Task A, B, C, D and E)

Task 3.1: Prior Phase Drawings/Comment Incorporation

- Includes incorporation of all 90% related comments from the DOA into 100% Construction Documents.

Task 3.2: 100% Construction Documents Preparation

- Includes providing 100% design level electrical information reflecting required one-line diagrams, riser diagrams, panel schedules, details and plan layouts for design & specification.
- Includes 100% design level electrical calculations.

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Mr. Aaron Jackson P.E.,
PBIA Switchgear Replacement Phase 2 Scope & Fee

- Coordination with the RS&H Team on the electrical requirement of other disciplines and provide 100% Construction Plans and technical specifications for electrical design.

Task 3.3: Quality Control Review

- Includes responses to RS&H QC comments for incorporation into final 100% submittal.
- Includes interdisciplinary review to ensure coordination of elements between disciplines

Task 3.4: Submittal

- Prepare and submit electronic pdf plans and specifications to RS&H.

Task 3.5: Rough Order of Magnitude (ROM) Opinion of Probable Construction Cost

- Include review of 100% Electrical Probable Construction Cost and provide comments to RS&H Team.

Task 3.6: 100% Construction Document Review Meeting

- Includes attending 100% design review meeting with DOA and RS&H Team.
- Includes responses to review comments generated by the DOA and RS&H Team.

Task 4: Bidding Phase Services (Task A, B, C, D and E)

Task 4.1: Bid / Permit Documents

- Includes incorporation of all 100% related comments from the DOA, CMAR and RS&H Design Team into Bid / Permit Documents.
- Includes signing and sealing drawings and specifications.
- Includes review of CMR Bid documents.
- Attendance at Prebid with on-site walkthrough.

Task 4.2: Inquiries/Clarifications and Addenda

- RFI and Addendum Responses

Task 4.3: Bid Review and Recommendation

- Review of CMAR GMP proposal and electrical pricing results and provide comments to RS&H Team.

Task 4.4: Permit Clarifications

- Review permit comments and provide responses and plan revisions as necessary.

Task 4.5: Conformed Documents

- Includes incorporation of all issued documentation under Tasks 4.2 and 4.4 into Conformed Documents to be used for construction.

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Mr. Aaron Jackson P.E.,
PBIA Switchgear Replacement Phase 2 Scope & Fee

Exclusions and Assumptions

- RS&H shall provide all base drawings to Quantum on AutoCAD 2020 or higher.
- Quantum shall provide 1-set of electronic electrical plans & specifications to RS&H for 60%, 90%, 100% reviews, permit documents and bid documents.
- RS&H shall provide all printing of plans & specifications for reviews, bid phase, permits and construction phases.
- Does not include coordination study or arc flash analysis (to be included in construction services).
- Does not include construction services.

Our proposed total Lump-Sum fee for Terminal Building Switchgear is:	\$ 380,958.33
Our proposed total Lump-Sum fee for Concourse A Switchgear is:	\$ 52,453.33
Our proposed total Lump-Sum fee for Concourse B Switchgear is:	\$ 8,382.63
Our proposed total Lump-Sum fee for Concourse C Switchgear is:	\$ 50,999.53
Our proposed total Lump-Sum fee for Parking Garage Bldg. 1100 SWGR is:	\$ 33,611.26
Our proposed total Lump-Sum fee for Bidding Phase Services is:	\$ 8,947.97
Our proposed Grand Total Lump-Sum fee is:	\$ 535,353.05

(See Attachment for Breakdown)

Sincerely,



Amy L. Champagne-Baker, PE
President

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PALM BEACH COUNTY DEPARTMENT OF AIRPORTS- PBIA SWITCHGEAR REPLACEMENT PHASE 2									
QUANTUM ELECTRICAL ENGINEERING, INC.									
SCOPE FEE SUMMARY									
FEE PROPOSAL ELECTRICAL SERVICES TO RSH 10-26-22									
	Rate	\$161.54	\$144.23	\$138.46	\$69.23	\$132.69	\$46.15		
	Proj. Mgr.	Prof. Eng	Proj. Eng	CADD/Tech	Field Eng.	Clerical	Total		TOTAL
PHASE OF WORK - TASK A: REPLACEMENT OF TERMINAL BUILDING SWITCHGEAR	Hours	Hours	Hours	Hours	Hours	Hours	Hours	Expenses	TASK COST
Task 1 Phase 3A: 60% Construction Documents									
Task 1.1: Project Kick-Off		1					1		\$144.23
Task 1.2: Site Inspection/verifications/Discovery Phase		40	40			16	96		\$12,046.00
Task 1.3: Design Coordination Meetings		2					2		\$288.46
Task 1.4: Testing			40				40	\$53,200.00	\$58,738.40
Task 1.5: 60% Design Document Preparation		360	410	446		20	1236		\$140,490.98
Task 1.6: Quality Control Review		24	24			4	52		\$6,969.16
Task 1.7: Submittal		20	40	48			108		\$11,746.04
Task 1.8: Rough Order of Magnitude (ROM) Opinion of Probable Construction Cost		4					4		\$576.92
Task 1.9: Design Development Review Meeting		1					1		\$144.23
Subtotal	0	452	554	494	0	40	1540		\$231,144.42
Task 2 Phase 3B: 90% Construction Documents									
Task 2.1 Prior Phase Drawings/Comments Incorporation		1					1		\$144.23
Task 2.2: Design Coordination Meetings		2					2		\$288.46
Task 2.3: 90% Construction Documents Preparation		200	240	345		12	797		\$86,514.55
Task 2.4: Quality Control Review		20	16			4	40		\$5,284.56
Task 2.5: Submittal		20	40	40			100		\$11,192.20
Task 2.6: Rough Order of Magnitude (ROM) Opinion of Probable Construction Cost		4					4		\$576.92
Task 2.7: 90% Construction Document Review Meeting		1					1		\$144.23
Subtotal	0	248	296	385	0	16	945		\$104,145.15
Task 3 Phase 3C: 100% Construction Documents									
Task 3.1: Prior Phase Drawings/Comment Incorporation		2					2		\$288.46
Task 3.2: 100% Construction Documents Preparation		79	100	128		12	319		\$34,655.41
Task 3.3: Quality Control Review		10	12			4	26		\$3,288.42
Task 3.4: Submittal		12	24	24			60		\$6,715.32
Task 3.5: Rough Order of Magnitude (ROM) Opinion of Probable Construction Cost		4					4		\$576.92
Task 3.6: 100% Construction Document Review Meeting		1					1		\$144.23
Subtotal	0	108	136	152	0	16	412		\$45,668.76
Task A Subtotal Hours	0	808	986	1031	0	72	2897		
Task A Subtotal Labor Cost	\$0.00	\$116,537.84	\$136,521.56	\$71,376.13	\$0.00	\$3,322.80			\$380,958.33

PHASE OF WORK - TASK B: REPLACEMENT OF CONCOURSE A SWITCHGEAR									
Task 1 Phase 3A: 60% Construction Documents									
Task 1.1: Project Kick-Off		1					1		\$144.23
Task 1.2: Site Inspection/verifications/Discovery Phase		8	8				16		\$2,261.52
Task 1.3: Design Coordination Meetings		2					2		\$288.46
Task 1.4: Testing			4				4	\$2,100.00	\$2,653.84
Task 1.5: 60% Design Document Preparation		48	64	72		10	194		\$21,230.54
Task 1.6: Quality Control Review		6	8			2	16		\$2,065.36
Task 1.7: Submittal		2	8	8			18		\$1,949.98
Task 1.8: Rough Order of Magnitude (ROM) Opinion of Probable Construction Cost		2					2		\$288.46
Task 1.9: Design Development Review Meeting		1					1		\$144.23
Subtotal	0	70	92	80	0	12	254		\$31,026.62
Task 2 Phase 3B: 90% Construction Documents									
Task 2.1 Prior Phase Drawings/Comments Incorporation		1					1		\$144.23
Task 2.2: Design Coordination Meetings		2					2		\$288.46
Task 2.3: 90% Construction Documents Preparation		24	40	48		4	116		\$12,507.56
Task 2.4: Quality Control Review		4	4				8		\$1,130.76
Task 2.5: Submittal		2	4	8			14		\$1,396.14
Task 2.6: Rough Order of Magnitude (ROM) Opinion of Probable Construction Cost		2					2		\$288.46
Task 2.7: 90% Construction Document Review Meeting		1					1		\$144.23
Subtotal	0	36	48	56	0	4	144		\$15,899.84
Task 3 Phase 3C: 100% Construction Documents									
Task 3.1: Prior Phase Drawings/Comment Incorporation		1					1		\$144.23
Task 3.2: 100% Construction Documents Preparation		8	8	16		1	33		\$3,415.35
Task 3.3: Quality Control Review		2	4	4			10		\$1,119.22
Task 3.4: Submittal		1	2	2			5		\$559.61
Task 3.5: Rough Order of Magnitude (ROM) Opinion of Probable Construction Cost		1					1		\$144.23
Task 3.6: 100% Construction Document Review Meeting		1					1		\$144.23
Subtotal	0	14	14	22	0	1	51		\$5,526.87
Task B Subtotal Hours	0	120	154	158	0	17	449		
Task B Subtotal Labor Cost	\$0.00	\$17,307.60	\$21,322.84	\$10,938.34	\$0.00	\$784.55			\$52,453.33

PHASE OF WORK - TASK C: REPLACEMENT OF CONCOURSE B SWITCHGEAR								
Task 1 Phase 3A: 60% Construction Documents								
Task 1.1: Project Kick-Off		1					1	\$144.23
Task 1.2: Site Inspection/verifications/Discovery Phase		1					1	\$144.23
Task 1.3: Design Coordination Meetings		1					1	\$144.23
Task 1.4: Testing			4				4	\$1,050.00
Task 1.5: 60% Design Document Preparation		4	6	8			18	\$1,961.52
Task 1.6: Quality Control Review		1	2	2			5	\$559.61
Task 1.7: Submittal		1	2	2			5	\$559.61
Task 1.8: Rough Order of Magnitude (ROM) Opinion of Probable Construction Cost		1					1	\$144.23
Task 1.9: Design Development Review Meeting		1					1	\$144.23
Subtotal	0	11	14	12	0	0	37	\$5,405.73
Task 2 Phase 3B: 90% Construction Documents								
Task 2.1 Prior Phase Drawings/Comments Incorporation		1					1	\$144.23
Task 2.2: Design Coordination Meetings		1					1	\$144.23
Task 2.3: 90% Construction Documents Preparation		1	2	3			6	\$628.84
Task 2.4: Quality Control Review		1	1	1			3	\$351.92
Task 2.5: Submittal			1	1			2	\$207.69
Task 2.6: Rough Order of Magnitude (ROM) Opinion of Probable Construction Cost		1					1	\$144.23
Task 2.7: 90% Construction Document Review Meeting		1					1	\$144.23
Subtotal	0	6	4	5	0	0	15	\$1,765.37
Task 3 Phase 3C: 100% Construction Documents								
Task 3.1: Prior Phase Drawings/Comment Incorporation		1					1	\$144.23
Task 3.2: 100% Construction Documents Preparation		1		3			4	\$351.92
Task 3.3: Quality Control Review		1		1			2	\$213.46
Task 3.4: Submittal		1		1			2	\$213.46
Task 3.5: Rough Order of Magnitude (ROM) Opinion of Probable Construction Cost		1					1	\$144.23
Task 3.6: 100% Construction Document Review Meeting		1					1	\$144.23
Subtotal	0	6	0	5	0	0	11	\$1,211.53
Task C Subtotal Hours								
	0	23	18	22	0	0	63	
Task C Subtotal Labor Cost								
	\$0.00	\$3,317.29	\$2,492.28	\$1,523.06	\$0.00	\$0.00		\$8,382.63

PHASE OF WORK - TASK D: REPLACEMENT OF CONCOURSE C SWITCHGEAR								
Task 1 Phase 3A: 60% Construction Documents								
Task 1.1: Project Kick-Off		1					1	\$144.23
Task 1.2: Site Inspection/verifications/Discovery Phase		8	8				16	\$2,261.52
Task 1.3: Design Coordination Meetings		2					2	\$288.46
Task 1.4: Testing			4				4	\$2,100.00
Task 1.5: 60% Design Document Preparation		48	64	72		2	186	\$20,861.34
Task 1.6: Quality Control Review		6	8			2	16	\$2,065.36
Task 1.7: Submittal		2	8	8			18	\$1,949.98
Task 1.8: Rough Order of Magnitude (ROM) Opinion of Probable Construction Cost		1					1	\$144.23
Task 1.9: Design Development Review Meeting		1					1	\$144.23
Subtotal	0	69	92	80	0	4	245	\$30,513.19
Task 2 Phase 3B: 90% Construction Documents								
Task 2.1 Prior Phase Drawings/Comments Incorporation		1					1	\$144.23
Task 2.2: Design Coordination Meetings		2					2	\$288.46
Task 2.3: 90% Construction Documents Preparation		22	40	48		2	112	\$12,126.80
Task 2.4: Quality Control Review		4	4				8	\$1,130.76
Task 2.5: Submittal		2	4	8			14	\$1,396.14
Task 2.6: Rough Order of Magnitude (ROM) Opinion of Probable Construction Cost		1					1	\$144.23
Task 2.7: 90% Construction Document Review Meeting		1					1	\$144.23
Subtotal	0	33	48	56	0	2	139	\$15,374.85
Task 3 Phase 3C: 100% Construction Documents								
Task 3.1: Prior Phase Drawings/Comment Incorporation		1					1	\$144.23
Task 3.2: 100% Construction Documents Preparation		8	8	10		1	27	\$2,999.97
Task 3.3: Quality Control Review		2	4	4			10	\$1,119.22
Task 3.4: Submittal		1	2	2			5	\$559.61
Task 3.5: Rough Order of Magnitude (ROM) Opinion of Probable Construction Cost		1					1	\$144.23
Task 3.6: 100% Construction Document Review Meeting		1					1	\$144.23
Subtotal	0	14	14	16	0	1	45	\$5,111.49
Task D Subtotal Hours	0	116	154	152	0	7	429	
Task D Subtotal Labor Cost	\$0.00	\$16,730.68	\$21,322.84	\$10,522.96	\$0.00	\$323.05		\$50,999.53

PHASE OF WORK - TASK E: REPLACEMENT OF PARKING GARAGE BLDG 1100 SWITCHGEAR								
Task 1 Phase 3A: 60% Construction Documents								
Task 1.1: Project Kick-Off		1					1	\$144.23
Task 1.2: Site Inspection/verifications/Discovery Phase		8					8	\$1,153.84
Task 1.3: Design Coordination Meetings		2					2	\$288.46
Task 1.4: Testing			4				4	\$4,200.00
Task 1.5: 60% Design Document Preparation		24	32	50		2	108	\$11,446.04
Task 1.6: Quality Control Review		4	4	8			16	\$1,684.60
Task 1.7: Submittal		2	4	4			10	\$1,119.22
Task 1.8: Rough Order of Magnitude (ROM) Opinion of Probable Construction Cost		1					1	\$144.23
Task 1.9: Design Development Review Meeting		1					1	\$144.23
Subtotal	0	43	44	62	0	2	151	\$20,878.69
Task 2 Phase 3B: 90% Construction Documents								
Task 2.1 Prior Phase Drawings/Comments Incorporation		1					1	\$144.23
Task 2.2: Design Coordination Meetings		2					2	\$288.46
Task 2.3: 90% Construction Documents Preparation		10	20	22		1	53	\$5,780.71
Task 2.4: Quality Control Review		4	4				8	\$1,130.76
Task 2.5: Submittal		2	4	8			14	\$1,396.14
Task 2.6: Rough Order of Magnitude (ROM) Opinion of Probable Construction Cost		1					1	\$144.23
Task 2.7: 90% Construction Document Review Meeting		1					1	\$144.23
Subtotal	0	21	28	30	0	1	80	\$9,028.76
Task 3 Phase 3C: 100% Construction Documents								
Task 3.1: Prior Phase Drawings/Comment Incorporation		1					1	\$144.23
Task 3.2: 100% Construction Documents Preparation		4	2	8		1	15	\$1,453.83
Task 3.3: Quality Control Review		1	1				2	\$282.69
Task 3.4: Submittal		2	2	2			6	\$703.84
Task 3.5: Rough Order of Magnitude (ROM) Opinion of Probable Construction Cost		2	4	4			10	\$1,119.22
Task 3.6: 100% Construction Document Review Meeting							0	\$0.00
Subtotal	0	10	9	14	0	1	34	\$3,703.81
Task E Subtotal Hours								
	0	74	81	106	0	4	265	
Task E Subtotal Labor Cost								
	\$0.00	\$10,673.02	\$11,215.26	\$7,338.38	\$0.00	\$184.60		\$33,611.26
PHASE OF WORK								
Task 4: Bidding Phase Services								
Task 4.1 Bid / Permit Documents		10					10	\$1,442.30
Task 4.2: Inquiries/Clarifications and Addenda		15	8	16		10	49	\$4,840.31
Task 4.3: Bid Review and Recommendations		4					4	\$576.92
Task 4.4: Permit Clarifications		6	2	4		2	14	\$1,511.52
Task 4.5: Conformed Documents		4					4	\$576.92
Subtotal	0	39	10	20	0	12	81	\$8,947.97
Task F Subtotal Hours								
	0	39	10	20	0	12	81	
Task F Subtotal Labor Cost								
	\$0.00	\$5,624.97	\$1,384.60	\$1,384.60	\$0.00	\$553.80		\$8,947.97
Grand Total Hours								
	0	1180	1403	1489	0	112	4184	
Grand Total Labor Cost								
	\$0.00	\$170,191.40	\$194,259.38	\$103,083.47	\$0.00	\$5,168.80		\$535,353.05



2594 N. Mount Juliet Road
Mount Juliet, TN 37122

June 10, 2022

(615) 758-7474
www.connico.com

Mr. Aaron Jackson
RS&H
10748 Deerwood Park Blvd South,
Jacksonville, FL 32256

RE: PBI Switchgear Replacement Phase II
Palm Beach International Airport
West Palm Beach, Florida

Dear Mr. Jackson:

We are pleased to present our fee proposal for the referenced project.

We appreciate the opportunity to team with you on this project. Should you have any questions or need additional information, please contact us at your convenience.

Sincerely,

The Connico Team

A handwritten signature in black ink, appearing to read "Charles J. Cleary".

Charles J. Cleary, CPE
Chief Cost Specialist
cjcleary@connico.com

Connico File No. 4312.22.17

EXHIBIT A – SCOPE OF WORK AND FEE

Project Scope

The scope of work consists of the replacement of primary electrical components that provide electrical service to the Terminal Complex at Palm Beach International Airport.

The construction budget has not been established.

Basic Scope of Services

Connico proposes to provide the following services:

- ⇓ 60% Design Document Estimate
- ⇓ 90% Design Document Estimate
- ⇓ 100% Design Document Estimate

Each phase includes an initial scope of work review meeting and a draft estimate review meeting via teleconference. The teleconference meeting is to occur prior to issuing an electronic copy of the report. A limited site visit for the purposes of providing an opinion of probable cost is not included. This proposal is for planning, design phase services only; construction phase services are not included.

In providing estimates of probable construction cost the Client understands that Connico has no control over the cost or availability of labor, equipment, or materials, or over market conditions or the Contractor's method of pricing, and that Connico's estimates of probable construction costs are made on the basis of Connico's professional judgment and experience. Connico makes no warranty, express or implied, that the bids the negotiated cost of the Work will not vary from Connico's estimate of probable construction cost

Connico will require an electronic version of the drawings (PDF) and narrative/specifications, and a copy of the soil borings report, if available and applicable.

Connico will provide an electronic copy of the report.

Deliverables

The estimate will be prepared in a format to fit the requirements of the Client, provided the format is established at the beginning of the estimating task. The estimate will identify Connico's opinion of probable construction cost of the project based on the documents provided by the Client. Connico is entitled to rely and will rely on the accuracy and completeness of all such documents without undertaking an independent investigation to confirm the same.

Also included within the report shall be the estimate notes. The notes will contain allowances, criteria, and clarifications for the estimate based on Connico's assumptions and verbal information provided by the design team. The notes will also include any other comments about the project that Connico believes are relevant.

Connico will provide an electronic copy of the estimate report.

The estimate(s) shall be prepared within twelve (12) business days from the date all design information required is received by Connico. In the event that supplemental information is furnished to Connico after a task has begun, and such information requires changes to any quantity take-off currently in progress, Connico reserves the right to request additional compensation for any such additional take-off. No additional time shall be expended on work affected by such supplemental information without the prior written consent of the Client and an agreement having been reached as to the scope and additional fee required.

EXHIBIT A – SCOPE OF WORK AND FEE

Proposed Fees (Basic Scope of Services)

↓ 60% Design Document Estimate	\$27,000.00
↓ 90% Design Document Estimate	\$28,600.00
↓ 100% Design Document Estimate	\$14,600.00

Total Proposed Fees (Lump Sum) \$70,200.00

The proposed fees are based on providing all listed phase of estimates. Should the Client elect to change the scope of services, Connico reserves the right to renegotiate our fees.

Proposed fees are based on providing one draft estimate for review and comment and one final estimate. Should additional revisions be requested, these shall be considered additional services.

Services not set forth above and not listed in Exhibit A of this Agreement are specifically excluded from the scope of the Consultant’s services. The Consultant assumes no responsibility to perform any services not specifically listed in Exhibit A.

Additional Services

Additional services are not included as part of the Basic Scope of Services and shall be paid for by the Client, in addition to payment for Basic Services, in accordance with Connico’s schedules below, or as agreed to by the Client and Connico.

Proposed fees are based on providing one draft report for review and comment and one final report. Should additional revisions be requested, these shall be considered additional services.

Services not set forth above and not listed in Exhibit A of this Agreement are specifically excluded from the scope of Connico’s services. Connico assumes no responsibility to perform any services not specifically listed in Exhibit A.

Additional Services

Additional services are not included as part of the Basic Scope of Services and shall be paid for by the Client, in addition to payment for Basic Services, in accordance with the rates included within the agreement, or as agreed to by the Client and Connico.

Basic Services do not include, cost management, evaluating or making recommendations regarding substitution of materials, products, or equipment proposed, design alternatives or value engineering building or site systems; reconciliation estimates or services, and meetings not included within the base proposal. Connico shall be reimbursed at the rates included within the agreement.

EXHIBIT A – SCOPE OF WORK AND FEE

Project Submitted by:



Charles J. Cleary CPE

EXHIBIT A-3 – Task I-22-PBI-R-029: Concourse B Expansion – Dual Package Development

Concourse B Expansion – Dual Package Development Scope of Work

Version 1.0

September 2, 2022

Palm Beach County (PBC) Department of Airports (DOA)

West Palm Beach, FL

Task Authorization No. I-22-PBI-R-029

RS&H Project No.: 2006-3101-029

Prepared by RS&H, Inc. at the
direction of PBC DOA

RS&H

I PROJECT DESCRIPTION

The Airport has requested that RS&H (Consultant) under the Agreement with RS&H for Airport Facilities and System Consulting Services for Palm Beach County Department of Airports Project No. DOA 18-2A provide a scope and fee for the following additional services:

- Design Services for additional elements added into Project during design at the request of the Airport during Phase 3C: 90% Construction Document development phase
 - Operations Suite on Apron Level
 - Additional Concessionaire Storage – DOA request due to concessionaire storage area being insufficient as determined on review by Airport Concessionaire Consultant under separate contract. (Analysis not completed by RS&H)
 - Additional Site and utility design due to phasing and splitting of packages
 - Additional design for temporary kitchen and electrical room
 - Additional design services to renovate flooring (carpet) in Holdrooms B1, B2, B3, B4, B5, and B7
 - Additional services to remove sterile corridor between Gates B2 & B4 from scope of work (ie remove information from drawings) upon review of B2/B4 holdroom layout and main circulation width impacts (insufficient square footage within existing building footprint to adequately program spaces). DOA requested corridor which RS&H included; however, upon layout impact, corridor was removed from project.
- Design Services for splitting deliverable of Task 6: Phase 3C: 100% Construction Documents of PBC DOA Task I-21-PBI-R-023 into two (2) separate CMAR packages (Project) due to funding and phasing of other on-going Projects at the Airport
 - Package 1 to include West Concession Bumpout, Gate B6 Restroom Block & Temporary Kitchen and Electrical Room
 - Package 2 to include Concourse B Expansion (Gates B6, B8, B10, B12, B14, B9, B11, B15) and renovation to existing Concourse B main circulation flooring upgrade: End of Concourse B ramp to Holdroom B7.

This effort will impact Task 6 of the original project scope and the following professional disciplines and drawings are expected to be impacted:

<u>Consultant/Subconsultant</u>	<u>Involvement</u>
RS&H, Inc.	Cover and Sheet Index, Civil Site, Life Safety, Architecture, Interiors, Structural, Low Voltage – Security, Paging, Telcom
Keith and Associates, Inc.	Subsurface utility investigation and civil utility (water and sanitary).

JLRD	Mechanical, Plumbing, Fire Protection (including smoke evaluation)
Quantum Electrical Engineering, Inc.	Electrical – Power, Lighting, Lightning Protection, Fire Alarm
Connico	Cost Estimating

II PROJECT TASKS

TASK 1 ADDITIONAL DESIGN SERVICES

Task 1.1 Additional Design Services

Operations Suite

Task also includes design effort for added Operations Suite including but not limited to architecture, structural, mechanical, plumbing, fire protection, electrical, and low voltage design.

Concessionaire Storage Area 2

Task also includes design effort for added Concessionaire Storage Area 2 including but not limited to architecture, structural, mechanical, plumbing, fire protection, and electrical design.

Site Development

Due to splitting of packages, changes in the grades to the proposed apron will be required. This will require development of a transition area from the proposed grades being installed as part of Package 1 back to the existing grades in the Package 2 area.

Also, with regards to the proposed watermain improvements, additional rerouting of the proposed line and connections to the existing line will be required to maintain flow of the watermain within the Package 1 boundary until Package 2 is implemented. Task includes design for extension and tie-in to provide complete site utility design covered by original scope of work.

Temporary Kitchen and Electrical Room

Due to the splitting of packages, this task includes including design for a temporary kitchen in Package 1 to modify Stinger Ray's kitchen to support passengers' access to hot food during Package 1 construction once Burger King kitchen is demolished (Original scope included demolition of existing concessionaire spaces including Burger King and Stinger Rays). Temporary Kitchen will support Stinger Ray's as well as have a pass-thru window to the passenger circulation. Temporary Kitchen will then be required to be shown on demolition drawings in Package 2 to allow for new concessionaire area captured under original design

scope of work. Task also include temporary electrical room to support relocation of electrical equipment required to keep Stinger Rays in operation during Package 1.

Existing Holdrooms B1, B3, B5, B7, B2 & B4 Floor Upgrades

Task includes design effort to specify and include in construction documents (demo and new drawings) the renovation of holdrooms for new carpet. Task added by DOA at 90% Design Phase.

Removal of Sterile Corridor

Task includes effort to remove sterile corridor from the construction documents (drawings and project manual) at the 90% Phase. Upon DOA review of the floor plan impacts of the corridor within the existing building footprint, holdrooms B2 & B4 square footage were undersized for design aircraft while maintaining current main circulation width (recommended by RS&H based on Terminal Planning Standards for 2-way circulation).

Task 1.2 Two Design Packages

Task includes splitting the deliverable of Task 6.1 100% Construction Documents (Drawings and Project Manuals) of Task I-21-PBI-R-023 into (2) deliverables for the elements associated with each Package noted above.

Separation of the Project into two (2) Packages will require the Consultant to revise the drawings to review the scope, determine and split the scope into correct packages, and make additional efforts to duplicate backgrounds and drawings for each Package. In some cases, creation of new drawings was necessary. The Project includes demo drawings and drawings showing new work. It also includes duplicating the Project Manual and assigning specifications (and duplicating specifications) into the correct Package. Efforts in developing the scope of work to complete 100% Construction Documents shall be captured under Task I-21-PBI-R-023 (with the exception of additional design services for Items Task 1.1), only the additional design effort to create drawings for phasing the packages is captured under this Task.

- Cover and Sheet Index
- Civil – Site
- Civil – Utilities
- Life Safety
- Architectural
- Interiors
- Structural
- Mechanical – HVAC Ducting, Piping
- Plumbing – Drain Waste (Sanitary and Storm), Pressure Piping
- Fire Protection
- Electrical – Power, Lighting, Grounding and Lightning Protection, Fire Alarm
- Low Voltage – Telcom, Paging, Security

The Consultant's sheet counts duplicated to create Package 1 is as follows:

- RS&H – 137 sheets
- Keith – 7 sheets
- JLRD – 29 sheets
- Quantum – 38 sheets

Task 1.3 Two Cost Estimate Budget Development Packages

Task includes splitting the deliverable of Task 6.2 Cost Estimate into two (2) packages noted above. Task includes efforts for duplicating and delivering two (2) deliverables, ie two estimates of probable construction. Efforts in developing estimate development shall be captured under Task I-21-PBI-R-023, only the additional effort to create (2) deliverables is captured under this task and hours to review the duplicate budget packages.

Task 1.4 2nd 100% Construction Document Review Meetings

The Consultant shall coordinate and attend one (1) additional review meeting (one meeting included in Task 6.3 of Task I-21-PBI-R-023) attended by members of the Consultant's team below, to review the 2nd 100% Construction Document submittal.

On-Site: RS&H: Project Manager, Lead Architect, Lead Civil Engineer
 JLRD: Lead Mechanical
 Quantum: Lead Electrical
 Remote: Keith Team: Civil Utilities
 RS&H: Interiors, Low Voltage

Task 1.5 Two (2) Permit Document Packages

Task includes the development of two (2) deliverables for Task 6.4 Permit Documents. Additional effort to provide documents for permitting; respond to questions, clarifications, and code considerations from permitting officials; and issue revisions to drawings as necessary. It is anticipated that the CMAR will be submitting documents to permitting agency.

An additional meeting with SFWMD may be required to discuss the split of the drainage installation between the two work packages. This will be to determine if two separate permit submittals will be needed or if it can remain within the single submittal as intended.

Task 1.6 Project Management

The Consultant will oversee scheduling, monitoring, oversight, direction, and control for all aspects of the team's efforts associated with Task 1.1 thru Task 1.5 including assembly and coordination of all documentation.

III PROFESSIONAL SERVICES FEE AND FEE TYPE

For Lump Sum fee:

RS&H will provide the above referenced services for a Fixed Lump Sum Fee of \$155,917.10. See Attachment for a breakdown of costs.

PALM BEACH COUNTY DEPARTMENT OF AIRPORTS
 Airport Facilities & Systems Planning, Design, Engineering and Construction Management Professional Services

RS&H, INC.
 Concourse B Expansion – Dual Package Development

<u>Task</u>	<u>Description</u>	<u>Hours</u>	<u>Fee</u>
1	Two Design Packages		
1.1	Additional Design Services	149	\$27,947.79
1.2	Two Design Packages	149	\$27,947.79
1.3	Two Cost Estimate Budge Development Packages	10	\$2,027.40
1.4	2nd 100% Construction Document Review Meetings	8	\$1,609.52
1.5	Two (2) Permit Document Packages	58	\$10,080.54
1.6	Project Management	16	\$4,592.32
		Subtotal RS&H Labor Hours	390
		Subtotal RS&H Labor Fee	\$74,205.36
<u>Subconsultants</u>			
	Keith Team		\$31,823.44
	JLRD		\$31,100.00
	Quantum Electrical Engineering		\$12,888.30
	Connico		\$5,900.00
		Subtotal Subconsultant Fee	\$81,711.74
<u>Expenses</u>			
		Subtotal Expenses	\$0.00
		Total Project Fee	\$155,917.10

Concourse B Expansion – Dual Package Development

	HOURS										HOURS	TOTAL COST (\$)
	Principal	Sr. Project Manager	Senior Architect	Architect	Senior Engineer	Engineer	Intern Engineer	Senior Technician / Designer	Technician / Designer	Administrative Assistant		
	\$349.99	\$297.02	\$245.39	\$125.87	\$246.83	\$151.55	\$246.63	\$117.33	\$111.75	\$60.37		
Task 1 Two Design Packages												
1.1 Additional Design Services												
Civil					8	20	30				58	\$12,402.94
Life Safety					8						8	\$1,006.96
Architecture			8	30							38	\$5,739.22
Interiors			2	8							10	\$1,497.74
Structural					1	2	12				15	\$3,509.29
Low Voltage					8	12					20	\$3,791.64
1.2 Two Design Packages												
Civil					8	20	30				58	\$12,402.94
Life Safety					8						8	\$1,006.96
Architecture			8	30							38	\$5,739.22
Interiors			2	8							10	\$1,497.74
Structural					1	2	12				15	\$3,509.29
Low Voltage					8	12					20	\$3,791.64
1.3 Two Cost Estimate Budge Development Packages		2	2		2			4			10	\$2,027.40
1.4 2nd 100% Construction Document Review Meetings												
Civil					2						2	\$493.26
Life Safety			1								1	\$245.39
Architecture				2							2	\$251.74
Interiors				1							1	\$125.87
Structural					1						1	\$246.63
Low Voltage					1						1	\$246.63
1.5 Two (2) Permit Document Packages												
Civil					2						2	\$493.26
Life Safety												\$0.00
Architecture			8	16							24	\$3,977.04
Structural					8	16					24	\$4,397.84
Low Voltage						8					8	\$1,212.40
1.6 Project Management												
Project Manager		16									16	\$4,592.32
Task Total	-	18	21	65	33	58	42	4	-	-	241	\$74,205.36
TOTAL FOR ALL TASKS (RS&H)	-	18	21	65	33	58	42	4	-	-	241	\$74,205.36

Concourse B Expansion – Dual Package Development

Sub Consultant Effort by Major Task Item	Task 1	Total
Keith Team	\$31,823.44	\$31,823.44
JLRD	\$31,100.00	\$31,100.00
Quantum	\$ 12,888	\$12,888.30
Connico	\$ 5,900.00	\$5,900.00
TOTAL SUBCONSULTANTS		\$81,711.74



AGREEMENT FOR PROFESSIONAL SERVICES

April 25, 2022

Aaron R Jackson, P.E.
RS&H, Inc.
3125 W. Commercial Blvd. Suite 130
Fort Lauderdale, FL 33309
Phone: (954) 236 - 7364
E-mail: Aaron.Jackson@rsandh.com

Project Name: PBI Concourse B Expansion
KEITH Project Number: 10216.10

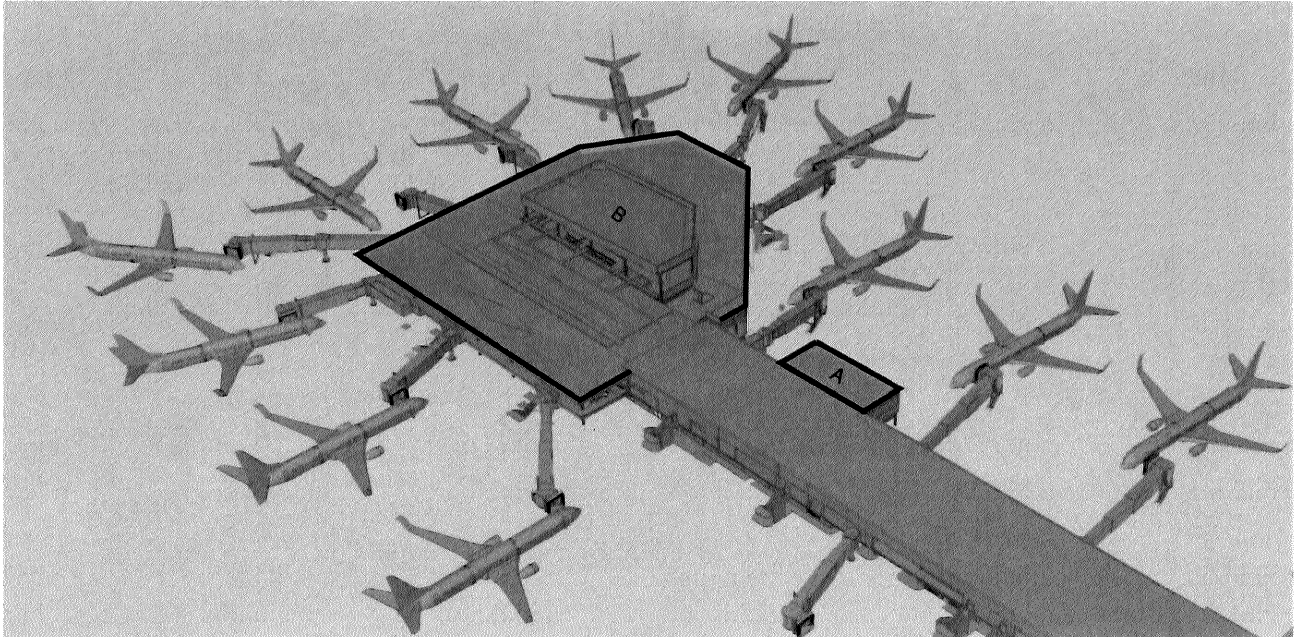
Dear Mr. Jackson:

In accordance with your request and subsequent discussions between members of our association and yourself, this agreement between Keith and Associates, Inc. dba KEITH (CONSULTANT) and RS&H ("CLIENT") for professional services is submitted for your consideration and approval. The purpose of this Agreement is to outline the scope of services recommended by KEITH and accepted by CLIENT, and to establish the contractual conditions between KEITH and CLIENT with respect to the proposed services.

PROJECT UNDERSTANDING

The CLIENT has requested that KEITH provide Civil (Water/Sewer) services to develop 100% Construction Documents split into two separate packages and prepare and process permitting approvals. KEITH will alter the current 90% design in order to allow the utilities to be adequately phased through partial certifications related to the permitting, while ensuring the same level of service is provided to the surrounding fire hydrants and potable water cabinets between the two packages.

Project Areas – Site Map



www.KEITHteam.com

pompano beach (HQ) • fort Lauderdale • miami • west palm beach • orlando • tallahassee

April 25, 2022 / Page 2 of 4
10216.10 PBI Concourse B Expansion
RS&H

PROJECT SCOPE

KEITH services included for this project:

Survey

- ALTA/NSPS
- Topography
- Boundary
- Tree
- Sketch and Description
- Construction Layout
- Construction As-Built
- Other _____

SUE

- Horizontal Designation
- Location Services
- Utility Mapping
- Records Research
- Other _____

Planning Services

- Due Diligence
- Platting
- Rezoning
- Conditional Use Permit
- Right of Way Vacation
- Site Plan Processing and Coordination
- Other _____

Civil Engineering Services

- Paving, Grading and Drainage
- Water Distribution and Sanitary Sewer
- Erosion Control Plan
- Civil Permitting

Transportation Engineering Services

- Major Roadway
- Minor Roadway
- Drainage
- Maintenance of Traffic Plans
- Quality Control
- Other _____

Traffic Engineering Services

- Traffic Impact Study
- Traffic Impact Statement
- Parking Study
- Pavement Marking and Signage
- Signalization
- Roadway Lighting
- Other _____

Landscape Architecture Services

- Hardscape and Paving
- Fine Grading
- Landscape
- Irrigation
- Site Lighting
- Pools or Water Features
- Specialty Features
- Other _____

Construction/Program Management Services

- Permitting
- Bidding Assistance
- Construction Observation
- Construction Certification
- Other _____

It is assumed adequate service points already exist on-site or at the abutting site boundary or in the adjacent public right-of-way. No sewage pump station or offsite improvements or extensions, other than service connections, are anticipated under this Proposal.



Engineering Inspired Design.

DESCRIPTION OF SERVICES AND DELIVERABLES

Task 1 CIVIL ENGINEERING SERVICES

Construction Documents (CD) – Final Engineering

Task 1.1 Two (2) 100% Construction Document Packages - Water Distribution and Sanitary Sewer Plans

KEITH will redevelop the combined water distribution and sanitary sewer system plans to service the proposed Concourse B Expansion, as to divide the utilities being rerouted into two packages. Package A will include the water main realignment around the proposed Bump out area and will limit the apron restoration, while still complying with minimum horizontal separations to the new structural components. Package B will include the remaining portion of the water main realignment around the Concourse B Expansion, as well as the associated connections. The new sanitary sewer lateral will be examined to determine the best course of phasing to minimize restoration limits between packages. Water and sanitary sewer calculations will be performed to address the impacts of the proposed development relating to the requirements for permit agency submittal.

It is anticipated that all existing utility infrastructure is adequate to provide the required domestic water, fire, and sanitary sewer services to the proposed improvements. An evaluation of the existing infrastructure regarding capacity to service the proposed Concourse B Expansion will be made for each individual package. Design services for Public Infrastructure improvements required to serve the proposed development will be addressed with a supplemental additional services agreement. These engineering services do not include the extension/replacement and/or upsizing of any existing water and/or sanitary sewer mains surrounding the site, not including those directly requiring relocation to allow for the new structural components of the project. Services associated with designing; and permitting any off-site infrastructure improvements required to provide service to the site will be addressed as additional services.

Deliverables

1. Construction Documents (Final Construction Documents) for above referenced Plans for each Package A and B.
2. Specifications – For above referenced Design Elements (specifications may be included in the plan sheets or a separate document for inclusion in the Contract Document Specification book.)
3. Water and Sewer Calculations as required for each Package A and B.
4. Meetings and Team Coordination – During the specified duration in the project schedule, the KEITH team will attend required meetings and coordination. It is assumed all meetings will be in South Florida.

Task 1.2 Two (2) Cost Estimate Budget Development Packages

KEITH will not have additional efforts associated with this subtask.

Task 1.3 2nd 100% Construction Document Review Meeting

KEITH will participate remotely in one (1) additional review meeting to go over the 2nd 100% Construction Document submittal.

Task 1.4 Engineering Permitting

KEITH will attend required pre-application meetings with agencies having jurisdiction over the facilities designed by KEITH, and prepare and submit the permit applications for the construction of the following improvements and process them through the following regulatory agencies:



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10216.10 PBI Concourse B Expansion
RS&H

Water and Sewer System

- Palm Beach County Water Utilities Department (PCWUD) – Potable Water Approval
- Palm Beach County Health Department (PBCHD) – Potable Water Permit (DEP Form)
- Palm Beach County Water Utilities Department (PCWUD) – Wastewater Approval
- Palm Beach County Health Department (PBCHD) – Wastewater Permit (DEP Form)

Single permits for water and sewer covering both packages will be processed, outlining the anticipated partial certification limits for each package. If additional permits are required, KEITH will process them and the fees for these additional services will be submitted to CLIENT as additional services under a contract addendum if required.

Deliverables

1. Permit applications and submittal documents required for above listed regulatory agencies for the listed project improvements.

Task 1.5 Project Management

KEITH will oversee scheduling, monitoring, oversight, direction, and control for all aspects of the water and sewer utilities in relation to the agencies outlined above consistent with the current schedule.

Lump Sum Fee for Task 1 Civil Engineering services will be.....\$31,823.44

The CLIENT is required to execute this Addendum and return it to the CONSULTANT prior to commencement of the additional services described herein. All items, terms, and conditions of the original Agreement (as amended to include the scope defined herein) remain unchanged and in full force and effect.

IN WITNESS WHEREOF, CONSULTANT and CLIENT have executed this agreement the day and year indicated below.

As to CONSULTANT
KEITH

As to CLIENT
RS&H, Inc.

Alex Lazowick
President
DATED: _____

Signature: _____
Print Name: _____
Title: _____
DATED: _____



Engineering Inspired Design.



Palm Beach County Airport General Services
Labor Rate Schedule: 2019 Rates

PBI Concourse B Expansion

Subconsultant Name: RS&H
Rate Proposal Date: 04/22/2022

KEITH ENGINEERING SERVICES				
Employee Title		Total Hourly Rate \$/Hour	HOURS	TOTALS
Project Manager III		220.99	56	\$12,375.44
Engineer III		132.6	80	\$10,608.00
Technician II		88.4	100	\$8,840.00
Total Lump Sum Fee				\$31,823.44

PBIA Concourse B Expansion - Dual Package Development

LABOR BREAKDOWN													LABOR BREAKDOWN													LABOR BREAKDOWN																																							
TASK	HOURS												TASK	HOURS												TASK	HOURS				RATE	COST																																	
	Sr. ENGR	PE	ENGR	Sr. DSN	Designer	CAD	SEC	Sr. ENGR	PE	ENGR	Sr. DSN	Designer		CAD	SEC	HRS																																																	
M	E	M	E	M	E	M	E	M	E	M	E	M	E	M	E	M	E																																																
BASIC DESIGN																						BASIC DESIGN																						LABOR COST																					
General																						Engineering Calculations																						Sr. Mechanical Engineer (Principal) 6.0 \$ 200.00 \$ 1,200																					
Project Administration 2																						Equipment Selection 2 4																						Sr. Electrical Engineer (Principal) 0.0 \$ 200.00 \$ -																					
Task 1.1 - Two 100% CD Packages (HVAC)																						HVAC / Ventilation Load Calculations 4 4																						Mechanical Engineer - PE 19.0 \$ 160.00 \$ 3,040																					
Duplicating/Spitting Backgrounds																						Smoke Evacuation Calculations 8 2 1																						Electrical Engineer - PE 0.0 \$ 160.00 \$ -																					
Duplicating/Spitting Sheets																						Fire Protection Calculations 4																						Mechanical Engineer 0.0 \$ 120.00 \$ -																					
Creating New Views and Sheets																						Coordination																						Electrical Engineer 0.0 \$ 120.00 \$ -																					
Duplicating/Spitting Specifications																						Electrical / Structural Coordination 12 24																						Sr. Mechanical Designer 111.0 \$ 105.00 \$ 11,655																					
Revising Scope Between Packages (HVAC and Smoke Evac) 2																																												Sr. Electrical Designer 0.0 \$ 105.00 \$ -																					
Task 1.1 - Two 100% CD Packages (Fire Pro)																						Meetings																						Mechanical Designer 102.0 \$ 90.00 \$ 9,180																					
Duplicating/Spitting Backgrounds																						Weekly Team Progress Calls (4 mtgs/ 3ppl) 12																						Electrical Designer 0.0 \$ 90.00 \$ -																					
Duplicating/Spitting Sheets																																												Cadd Draftsman 50.0 \$ 75.00 \$ 3,750																					
Creating New Views and Sheets																																												Secretarial 35.0 \$ 65.00 \$ 2,275																					
Duplicating/Spitting Specifications																																																																	
Revising Scope Between Packages 1																						Quality Control and Assurance																						JLRD LABOR COSTS																					
																						Internal Design Review (M-P-PP) 4 4 6																						\$ 31,100																					
Task 1.1 - Two 100% CD Packages (Plumbing)																																												SUBCONTRACT																					
Duplicating/Spitting Backgrounds																						BASIC DESIGN SUBTOTAL																																											
Duplicating/Spitting Sheets																						4 0 14 0 0 0 42 0 0 0 31 0																																											
Creating New Views and Sheets																																												CONSTRUCTION ADMIN																					
Duplicating/Spitting Specifications																																												EXPENSES																					
Revising Scope Between Packages 2																																												Reproduction - Dwgs (24" x 36") 0 0 0 \$ 1.10 \$ -																					
Task 1.2 - Two Cost Estimate Budget Development Pkgs																						PRE-BID																						Commissioning Docs 0 0 0 \$ 0.10 \$ -																					
Revw and comment on estimates (M,FP,P)																						PRE-CONSTRUCTION																						Reproduction - Specs (8.5" x 11") 0 0 0 \$ 0.10 \$ -																					
																						SHOP DRAWINGS																						SUMMARY																					
Task 1.3 - 2nd 100% CD Review Meeting																						BIDDING / RFIS																						JLRD DIRECT LABOR \$ 31,100																					
HVAC, Fire Protection, and Plumbing																						FIELD OBSERVATION - # visits																						SUBCONTRACT \$ -																					
Task 1.4 - Two Permit Document Packages																						SUBTOTALS																						SUBCONTRACT MARKUP (10%) \$ -																					
HVAC																						LABOR BASIC DESIGN 6 0 19 0 0 0 111 0 102 0 50 35																						EXPENSES \$ -																					
Fire Protection																						LABOR CONSTRUCTION ADMIN 0 0 0 0 0 0 0 0 0 0 0 0 0																						TOTAL PROPOSAL																					
Plumbing																																												\$ 31,100																					
BASIC DESIGN SUBTOTAL (Sheet)																						JLRD DIRECT LABOR																																											
2 0 5 0 0 0 69 0 102 0 19 35																						6 0 19 0 0 0 111 0 102 0 50 35																																											



JOHNSON, LEVINSON,
RAGAN, DAVILA, INC.
CONSULTING ENGINEERS

1450 Centrepark Boulevard, Suite 350
West Palm Beach, FL 33401
(561) 689-2303 • (561) 689-2302 Fax
www.jlrdinc.com

AUTHORIZATION FOR ENGINEERING SERVICES

CLIENT: Mr. Aaron Jackson, P. E.
RS&H, Inc.

PROJECT: PBI Concourse B Expansion - Task III-22-PBI-R-029
RE: Dual Package Development

DATE: April 27, 2022

JLRD PROJECT NO.: 120135

In accordance with the contract for the above referenced project, JLRD, Inc. is hereby authorized to perform the Engineering Services requested by RS&H, Inc. (the Client) as outlined below:

Task III-22-PBI-R-029 Scope:

Task 1 - Two Design Packages

This Project includes splitting the deliverable of 100% Construction Documents of PBC DOA Task I-21-PBI-R-023 into (2) deliverables.

Due to funding and phasing of other on-going Projects at the Airport, this scope of Work separates the Concourse B Expansion into two separate CMAR packages that include the following scopes of work:

Package 1

- Sterile Corridor – The new corridor between Gate B4 and B2. Includes modification to holdroom flooring and ceiling along column line 21 to account for the new corridor. Gate B4 is a “swing gate” allowing passengers to exit via the sterile corridor to FIS or into Concourse B.
 - Includes modifications to the systems that serve the corridor including but not limited to HVAC, fire protection, and smoke evacuation.

Mr. Aaron Jackson, P. E.
RE: PBI Concourse B Expansion - Task III-22-PBI-R-029
Date: April 27, 2022

- “North Bumpout” – The new concession space includes the new construction west of column line 19 and the renovation of existing space between column lines N & L. This would include renovation of the Sam Adams space to become part of the concession space.
 - Includes modifications to the systems that serve the concession space including but not limited to HVAC, sanitary (grease waste), storm, domestic water, fire protection, and smoke evacuation. Water service to and grease waste from the north bumpout will be capped below the elevated second level and the future tenant would be able to connect into.
- Restroom Block – The new restroom block will entail renovation of Burger King space to a new men’s restroom and renovation of the existing men’s / women’s restroom near Gate B6 to a women’s restroom. Restroom block also includes a new janitor, nursing, family restroom, and a communications room.
- “South Renovation” – The new renovation of the existing concession space from Burger King to Coastal Cove. Shifts the concession wall adjacent to the passenger central walkway to create a uniform wall along the path. Includes expansion of the Holdroom for B4 as B4 will be a future Design Aircraft IV gate (currently located at Gate B8).

Package 2 (Remainder of Project)

- Building – New construction west of column line Q, relocation existing egress stair to new footprint north of column line 19, and the renovation of the existing Concourse B passenger central walkway flooring east of Column Line Q from tile to terrazzo (to be under same contract that does terrazzo flooring in west of column line Q). Includes new concessionaire storage space on Apron Level and new OPS offices on Apron Level.
 - Includes modifications to the existing HVAC, smoke evac, plumbing, and fire protection systems.
 - Includes the addition of new HVAC, smoke evac, plumbing, and fire protection systems.

Task 1.1 - Two (2) 100% Construction Document Packages

Task includes splitting the deliverable of 100% Construction Documents of Task I-21-PBI-R-023 into (2) deliverables for the elements associated with each package noted above.



JOHNSON, LEVINSON,
RAGAN, DAVILA, INC.
CONSULTING ENGINEERS

1450 Centrepark Boulevard, Suite 350
West Palm Beach, FL 33401
(561) 689-2303 • (561) 689-2302 Fax
www.jlrdinc.com

This required revising the drawings to review scope, determine and split scope into correct packages, additional efforts to duplicate backgrounds and drawings for each package and in some cases, create new drawings. It also includes duplicating project manual and assigning specification (and sometime duplicating specification) into the correct package. Project includes demo drawings and drawings showing new work. Efforts in developing scope of work to complete 100% Construction Documents shall be captured under Task I-21-PBI-R-023, only the additional design effort to create drawings for phasing the packages is captured under this task.

- Mechanical – HVAC Ducting, Piping, Smoke Evacuation
- Plumbing – Drain Waste (Sanitary and Storm), Pressure Piping
- Fire Protection

Task 1.2 - Two (2) Cost Estimate Budge Development Packages

Task is for additional efforts by others. JLRD shall review and comment upon the cost estimate only.

Task 1.3 - 2nd 100% Construction Document Review Meeting

JLRD shall coordinate and attend one (1) on-site additional review meeting (one meeting included in prior Task I-21-PBI-R-023)

Task 1.4 - Two (2) Permit Document Packages

Task includes development of two (2) deliverables for Permit Documents. Additional effort to provide documents for permitting; respond to questions, clarifications, and code considerations from permitting officials; and issue revisions to drawings as necessary. It is anticipated that the CMAR will be submitting documents to permitting agency.

Mr. Aaron Jackson, P. E.
RE: PBI Concourse B Expansion - Task III-22-PBI-R-029
Date: April 27, 2022

FEES:

1. The above-mentioned scope shall be provided based upon a lump-sum fee amount as follows:

- *Thirty-One Thousand One Hundred Dollars (\$31,100.00)*

TIME OF PERFORMANCE:

1. Design services will be completed with due and reasonable diligence after receipt of this executed authorization.

Accepted By:

Date:

QUANTUM

Electrical Engineering, Inc.

April 21, 2022

RS&H, Inc.
Mr. Aaron Jackson, PE
Vice President, Aviation
3125 W Commercial Blvd, Suite 130,
Fort Lauderdale, FL 33309

Subject: Electrical Engineering Services Fee Proposal for the Palm Beach County
Department of Airports (DOA) – TASK I-19-PBI-R-011 – CONCOURSE B
EXPANSION PACKAGE 1 AND PACKAGE 2.

Dear Aaron:

Quantum Electrical Engineering, Inc. (QUANTUM) is pleased to provide RS&H an electrical engineering services fee proposal for separating the proposed new Concourse B Expansion project into a Package 1 and Package 2.

The following design tasks are included in our scope:

Task 1.2 2nd 100% Construction Document Review Meeting

- Attend one (1) additional review meeting (one meeting included in Task 6.3 of Task I-21-PBI-R-023)

Task 1.4 Construction Documents

- Includes design coordination meetings with the DOA and RS&H Design Team.
- Includes electrical modifications of the existing 90% design to create an early work Package 1 which shall include design of the West Concession Bump out and the Restroom Renovation.
- Includes modification to electrical distribution, lighting, grounding, and fire alarm to support Package 1 utilizing the existing electrical distribution. Includes design of temporary electrical service to maintain Stinger Ray concession during construction.
- Includes electrical modifications of the existing 90% design to reflect the work completed by Package 2.
- Includes modification to electrical distribution, lighting, grounding, and fire alarm to support Package 2 utilizing the new electrical distribution.

Our proposed Lump Sum fee is: \$12,888.30

(See Attachment for Breakdown)

Sincerely,



Amy Champagne-Baker, PE
President

Palm Beach County
2755 Vista Parkway, Suite I-9
West Palm Beach, FL 33411
561.210.9224

www.QuantumElectricalEngineering.com

Broward County
5571 N. University Drive, Suite 101
Coral Springs, FL 33067
954.369.5810

PALM BEACH COUNTY DEPARTMENT OF AIRPORTS- New PBI Concourse B Expansion										
QUANTUM ELECTRICAL ENGINEERING, INC.										
SCOPE FEE SUMMARY										
FEE PROPOSAL ELECTRICAL DESIGN to RSH 04/21/22										
	Rate	\$161.54	\$144.23	\$138.46	\$69.23	\$132.69	\$46.15			
		Proj. Mgr.	Prof. Eng	Proj. Eng	CADD/Tech	Field Eng.	Clerical	Total		TOTAL
PHASE OF WORK		Hours	Hours	Hours	Hours	Hours	Hours	Hours	Expenses	TASK COST
Task 1.3										
100% review meeting			2					2		\$288.46
Task 1.4										
Repackage 100% Construction Documents			40	24	40		16	120		\$12,599.84
Subtotal		0	42	24	40	0	16	122		\$12,888.30
Grand Total Hours		0	42	24	40	0	16	122		
Grand Total Labor Cost		\$0.00	\$6,057.66	\$3,323.04	\$2,769.20	\$0.00	\$738.40			\$12,888.30



2594 N. Mount Juliet Road
Mount Juliet, TN 37122

April 20, 2022

(615) 758-7474
www.connico.com

Aaron Jackson
RS&H
10748 Deerwood Park Blvd South
Jacksonville, Florida 32256

RE: PBI Concourse B Expansion-CD
Palm Beach International Airport
West Palm Beach, Florida

Dear Mr. Jackson:

We are pleased to present our fee proposal for the referenced project.

We appreciate the opportunity to team with you on this project. Should you have any questions or need additional information, please contact us at your convenience.

Sincerely,

The Connico Team

A handwritten signature in black ink, appearing to read "Nesor".

Charl J. Nesor, MRICS, CCP
Director
cjneser@connico.com

Connico File No. 4312.19.09



EXHIBIT A – SCOPE OF WORK AND FEE

Project Scope

Splitting the deliverable of Task 6.2 Cost Estimate (RS&H Work Order #1) into two (2) packages. Task includes efforts for duplicating and delivering two (2) deliverables, ie two estimates of probable construction costs. Efforts in developing estimates shall be captured under Task I-21-PBI-R-023, only the additional effort to create (2) deliverables is captured in this proposal.

Basic Scope of Services

Connico proposes to provide the following services:

- Construction Document Update Estimate (100% Design)

A site visit for the purposes of providing an opinion of probable cost is not included. This proposal is for design phase services only; construction phase services are not included.

Hazardous Materials Abatement is not included. If the Client provides an estimate for hazardous materials, Connico will include it in the estimate and cite the source.

In providing estimates of probable construction cost, the Client understands that Connico has no control over the cost or availability of labor, equipment, or materials, or over market conditions or the contractor's method of pricing, and that Connico's estimates of probable construction costs are made on the basis of Connico's professional judgment and experience. Connico makes no warranty, express or implied, that the bids, or the negotiated cost of the Work, will not vary from Connico's estimate of probable construction cost.

Connico will require an electronic version of the drawings (PDF) and narrative/specifications, and a copy of the soil borings report, if available and applicable.

Deliverables

The estimate will be prepared in a format to fit the requirements of the Client, provided the format is established at the beginning of the estimating task. The estimate will identify Connico's opinion of probable construction cost of the project, based on the documents provided by the Client. Connico is entitled to rely and will rely on the accuracy and completeness of all such documents without undertaking an independent investigation to confirm the same.

Also included within the report shall be the estimate notes. The notes will contain allowances, criteria, and clarifications for the estimate, based on Connico's assumptions and verbal information provided by the design team. The notes will also include any other comments about the project that Connico believes are relevant.

Connico will provide an electronic copy of the report.

The report shall be prepared within twelve (12) business days from the date all design information required is received by Connico. In the event that supplemental information is furnished to Connico after a task has begun, and such information requires changes to any quantity take-off currently in progress, Connico reserves the right to request additional compensation for any such additional work. No additional time shall be expended on work affected by such supplemental information without the prior written consent of the Client and an agreement having been reached as to the scope and additional fee required.

Proposed Fees (Basic Scope of Services)



EXHIBIT A – SCOPE OF WORK AND FEE

Construction Document Estimate (100%) \$ 5,900.00

Total Proposed Fees (Lump Sum) \$ 5,900.00

The proposed fees are based on providing all listed phase of estimates. Should the Client elect to change the scope of services, Connico reserves the right to renegotiate our fees.

Alternatives are included as indicated in the project scope of services. Should additional alternative requests be made, these shall be considered additional services.

Proposed fees are based on providing one draft report for review and comment and one final report. Should additional revisions be requested, these shall be considered additional services.

Services not set forth above and not listed in Exhibit A of this Agreement are specifically excluded from the scope of Connico’s services. Connico assumes no responsibility to perform any services not specifically listed in Exhibit A.

Additional Services

Additional services are not included as part of the Basic Scope of Services and shall be paid for by the Client, in addition to payment for Basic Services, in accordance with Connico’s schedules below, or as agreed to by the Client and Connico.

Basic Services do not include cost management, evaluating or making recommendations regarding substitution of materials, products, or equipment proposed, design alternatives or value engineering building or site systems, reconciliation estimates or services, and meetings not included within the base proposal. Connico shall be reimbursed at the following rates for additional services and shall remain in effect through December 2022. Or shall be reimbursed at the rates included within the agreement.

Principal	\$315.87/hour
Associate Principal	\$249.81/hour
Director	\$231.56/hour
Chief Cost Specialist	\$210.48/hour
Senior Cost Specialist	\$180.99/hour
Senior Project Specialist	\$162.00/hour to \$236.00/hour
Cost Specialist	\$148.00/hour to 162.00/hour
Analyst III	\$115.00/hour to 140.00/hour
Analyst II	\$90.39/hour to \$123.00/hour
Analyst I	\$86.69/hour
Administrative Specialist	\$97.22/hour

Proposal submitted by:

Charl J. Neser, MRICS, CCP

EXHIBIT A-4 – Task III Services

TASK III SERVICES

Level 3 Tasks – Miscellaneous Planning and Engineering Services: Work to be completed under Level 3 Tasks will be issued per the level of authority contained in PPW CW-F-050, by way of a separate proposal or task authorization, as described in the original Consulting Agreement (R-2019-0612).

TASK LEVEL / NO.	DESCRIPTION	BUDGET
Task III-19-DOA-R-001	Misc. AEP and Construction Consulting Services Amendment #6	\$ 200,000.00
Sub-total (Level 3)		\$ 200,000.00

EXHIBIT B: DETAILED FEES, EXPENSES AND PAYMENTS

EXHIBIT B-I: Summary of Fees

This Amendment #6, as described herein, consists of multiple tasks. As summarized below, these initial efforts have an overall budget of \$1,175,706.57.

LEVEL 1 TASKS:

TASK Level / No.	DESCRIPTION	LUMP SUM	NOT-TO-EXCEED	REIMBURSABLE EXPENSES	TOTAL
I-22-PBI-R-027:					
I-22-PBI-R-028:	Switchgear Replacement Phase 2	\$ 809,784.47	\$ 0.00	\$ 10,005.00	\$ 819,789.47
I-22-PBI-R-029:	Concourse B Expansion – Dual Package Development	\$ 155,917.10	\$ 0.00	\$ 0.00	\$ 155,917.10

LEVEL 3 TASKS:

TASK LEVEL / NO.	DESCRIPTION	TOTAL
Task III-19-DOA-R-001	Misc. AEP and Construction Consulting Services Amendment #6	\$ 200,000.00
Grand Total (Amendment #6)		\$1,175,706.57

EXHIBIT B-II: Schedule of Payments

The Scope of Work to be completed by CONSULTANT as defined in Exhibit “A” consist of specific completion phases which shall be clearly identified on phase-by-phase basis upon submission to the COUNTY of certain “deliverables”¹ as expressly indicated below. Compensation for the work tasks stated herein shall be in accordance with the following schedule of payment.

The following is a list of projects in the Work Program #2; Amendment #6:

LEVEL 1 TASKS:

Task I-22-PBI-R-027

Duration:

Compensation:

Task I-22-PBI-R-028

Switchgear Replacement Phase 2

Duration: 339 Working Days
(~474 Calendar Days)

Compensation: \$819,789.47

Task I-22-PBI-R-029

Concourse B Expansion – Dual Package Development

Duration: Per Contract

Compensation: \$155,917.10

LEVEL 3 TASKS:

Task III-19-DOA-R-001

Misc. AEP and Construction Consulting Services Amendment #6

Duration: As required in accordance with specific Task Authorizations

Compensation: \$200,000.00

TOTAL = \$1,175,706.57

1. “Deliverables” shall be defined as progress reports, prepared maps, bid documents, completed drawings, specific reports, work plans, documentation of meetings attended, assessment study reports, analysis reports, summary reports, recommendation reports and related draft reports and verifiable deliverables.

EXHIBIT C – PROPOSED SCHEDULES

Task I-22-PBI-R-027

Duration:

Task I-22-PBI-R-028

Switchgear Replacement Phase 2

Duration: 339 Working Days
(~474 Calendar Days)

Task I-22-PBI-R-029

Concourse B Expansion – Dual Package Development

Duration: Per Contract

EXHIBIT D – DISADVANTAGED BUSINESS ENTERPRISE COMPLIANCE

Table D-1 summarizes the estimated fee for each of our team members that are certified DBE firms for Amendment 6.

Table D-1: DBE Firms, Scheduled Payment, Scheduled % of Fee

Firm	Amendment 6 Totals	% of Amendment 6
Quantum	\$ 548,241.35	46.63%
TOTALS	\$ 548,241.35	46.63%

THE REST OF THIS PAGE IS INTENTIONALLY LEFT BLANK.

Table D-2 summarizes the estimated fee for each of our team members that are certified DBE firms for the Total Contract.

Table 2: DBE Firms, Scheduled Payment, Scheduled % of Total Fee

Firm	Base (R2019-0612) Totals	Amendment 1 (R2020-0414) Totals	Amendment 2 (R2020-1607) Totals	Amendment 4 (R2021-0844) Totals	Amendment 5 (R2022-0263) Totals	Amendment 6 Totals	Total Fees	% of Total Contract
Colome'	\$ 73,966.80	\$ 164,286.41	\$ -	\$ -	\$ -	\$ -	\$ 238,253.21	1.92%
Tierra South Florida	\$ 28,715.00	\$ 26,985.00	\$ 29,240.00	\$ -	\$ 3,165.00	\$ -	\$ 88,105.00	0.71%
Brown & Phillips	\$ 20,021.45	\$ 18,202.62	\$ 18,979.53	\$ -	\$ -	\$ -	\$ 57,203.60	0.46%
CECOS	\$ -	\$ 5,403.70	\$ -	\$ -	\$ -	\$ -	\$ 5,403.70	0.04%
Mobio	\$ 161,533.98	\$ -	\$ 176,600.00	\$ 323,400.00	\$ -	\$ -	\$ 661,533.98	5.32%
Lakdas-Yohalem	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	0.00%
Connico	\$ 90,000.00	\$ 9,300.00	\$ 69,000.00	\$ -	\$ -	\$ -	\$ 168,300.00	1.35%
Digital Building Services (3D Point Scan)	\$ -	\$ -	\$ 183,689.00	\$ -	\$ -	\$ -	\$ 183,689.00	1.48%
Master Consulting Engineers	\$ -	\$ 83,865.96	\$ 4,960.00	\$ 32,078.44	\$ -	\$ -	\$ 120,904.40	0.97%
Quantum	\$ -	\$ 181,491.77	\$ 1,229,569.80	\$ 149,029.00	\$ 542,155.33	\$ 548,241.35	\$ 2,650,487.25	21.31%
CRJ	\$ -	\$ 117,500.00	\$ -	\$ -	\$ -	\$ -	\$ 117,500.00	0.94%
TOTALS	\$ 374,237.23	\$ 607,035.46	\$ 1,712,038.33	\$ 504,507.44	\$ 545,320.33	\$ 548,241.35	\$ 4,291,380.14	34.50%

Notes:

1. Values in red differ from Amendment 5 Table D-2

2. Amendment 1 revisions

Connico value varies as Connico lost DBE status during design of Task I-22-PBI-R-013, thus, Connico fee for Task was removed from DBE calculation

Quantum value varies as value in Amendment 6 Table D-2 includes new Level 3 work awarded after Amendment 5.

Total value varies as summation of values changed

3. Amendment 2 revisions

Connico value varies updated to reflect Level 1 & 3 tasks.

Total value varies as summation of values changed

4. Amendment 4 revisions

Connico value varies as Connico lost DBE status during design of Task I-22-PBI-R-023, thus, Connico fee for Task was removed from DBE calculation

Total value varies as summation of values changed

5. Amendment 5 revisions

Total value varies as Amendment 5 Table D-2 had incorrect summation value.

**SCHEDULE 1(A)
LIST OF PROPOSED DBE FIRMS
(Professional Services)**

Airport Facilities & Systems Planning, Design, Engineering and Construction Management Professional Services for
LOI/SOQ Project Description: Palm Beach County Department of Airports

Name of Respondent: RS&H, Inc. Change Order/Task/Amendment No. (if applicable): Amendment No 6
 Contact Person: Pat Hargrove E-mail Address: pat.hargrove@rsandh.com
 Address: 10748 Deerwood Park Blvd S, Jacksonville FL 32256 Phone No.: 904-256-2437 Fax No.: 800-464-4358

Name, Address & Phone No. of DBE Firm	Description of Type of Work	Classification (Check applicable box)	Percentage of DBE Participation			
			Black	Hispanic	Women	Other (Please Specify)
Quantum Electrical	Electrical Engineering Design Services	<input type="checkbox"/> Prime Consultant <input checked="" type="checkbox"/> Subcontractor <input type="checkbox"/> Supplier <input type="checkbox"/> Manufacturer	_____ %	_____ %	46.63 %	_____ %
		<input type="checkbox"/> Prime Consultant <input type="checkbox"/> Subcontractor <input type="checkbox"/> Supplier <input type="checkbox"/> Manufacturer	_____ %	_____ %	_____ %	_____ %
		<input type="checkbox"/> Prime Consultant <input type="checkbox"/> Subcontractor <input type="checkbox"/> Supplier <input type="checkbox"/> Manufacturer	_____ %	_____ %	_____ %	_____ %
		<input type="checkbox"/> Prime Consultant <input type="checkbox"/> Subcontractor <input type="checkbox"/> Supplier <input type="checkbox"/> Manufacturer	_____ %	_____ %	_____ %	_____ %

Total Percentage of DBE Participation: 46.63 %

Notes:

- The percentages listed on this form for each DBE Firm must be supported by the percentages included on Schedule 2(A), "Letter of Intent to Perform as a Disadvantaged Business Enterprise", in order to be counted toward attainment of the DBE goal.
- Firms identified on this form must be certified as a DBE by the State of Florida's Unified Certification Program. Certification status can be verified on the Florida Department of Transportation's Biznet website at <https://www3.dot.state.fl.us/EqualOpportunityOffice/biznet/mainmenu.asp>.
- If materials or supplies are proposed to be purchased from a DBE regular dealer, the undersigned acknowledges that only sixty percent (60%) of the proposed expenditure will be counted toward attainment of the DBE goal.

By signing this form the undersigned Respondent is committing to utilize the above referenced DBE Firms on the Project and that the Respondent will monitor the DBE Firms to ensure that the work is actually performed by the by the DBE Firms.

By: Pat Hargrove
DocuSigned by:
4C8126E58A4642F...
 Signature

Date: 11/29/2022

Pat Hargrove, AIA NCARB, Vice President, Aviation

Print Name/Title of Person Executing on Behalf of the Respondent

SCHEDULE 2(A)
LETTER OF INTENT TO PERFORM AS A DISADVANTAGED BUSINESS ENTERPRISE
(Professional Services)

LOI/SOQ Project Description: Airport Facilities & Systems Planning, Design, Engineering and Construction Management Professional Services for Palm Beach County Department of Airports

Change Order/Task /Amendment No. (if applicable): _____

Name of Prime Respondent: RS&H, Inc.

Name of DBE Firm: Quantum Electrical Engineering, Inc.

The undersigned is certified as a Disadvantaged Business Enterprise by the State of Florida's Unified Certification Program. Check one or more classifications as applicable:

- Black Hispanic Women Other (Please Specify) _____
- Prime Consultant Subcontractor Manufacturer Supplier

The undersigned is prepared to perform the following described work in connection with the above-referenced project (specify in detail the particular work and/or parts thereof to be performed):

Electrical Engineering Design Services

(Additional Sheets may be used as necessary.)

Total Percentage of Participation by DBE Firm for this Project: 46.63 %

and will enter into a formal agreement for work with you conditioned upon your execution of a contract with Palm Beach County.

If the undersigned intends to subcontract any portion of the work described above to another subcontractor, please complete the following:

		%	<input type="checkbox"/> DBE Certified
(Name of Subcontractor)	(Percentage of work to be subcontracted)		<input type="checkbox"/> Non-DBE

The undersigned affirms that it has the resources necessary to perform the work described above without subcontracting the work to another subcontractor, except as noted above.

Quantum Electrical, Inc.

Printed Name	DocuSigned by:	
By:	<i>Amy Champagne-Baker</i>	
	640533133A4D42E...	
	Signature	
Date:	10/14/2022	

23-0255

BUDGET TRANSFER

**BOARD OF COUNTY COMMISSIONERS
PALM BEACH COUNTY, FLORIDA**

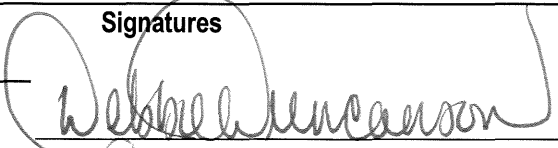

Page 1 of 1 pages

Advantage Document Numbers
BGEX 121-121422*0521

FUND 4111 Airport Improvement & Development Fund

Use this form to provide budget for items not anticipated in the budget.

ACCT.NUMBER	ACCOUNT NAME	ADOPTED BUDGET	CURRENT BUDGET	INCREASE	DECREASE	ADJUSTED BUDGET	EXPENDED/ ENCUMBERED AS OF 12/9/22	REMAINING BALANCE
EXPENDITURES								
121-A342-6504	lotb Non Infrastructure	8,293,550	8,274,919	819,790		9,094,709	7,720,206	1,374,503
121-A900-9909	Reserves Improvement Program	30,976,327	29,286,801	0	819,790	28,467,011	0	28,467,011
	Total Appropriations & Expenditures	187,285,160	182,795,335	819,790	819,790	182,795,335	37,250,967	145,544,368

OFMB	Signatures	Date	By Board of County Commissioners At Meeting of
INITIATING DEPARTMENT/DIVISION		12/14/22	January 24, 2023
Administration/Budget Department Approval		12/16/2022	Deputy Clerk to the
OFMB Department - Posted			Board of County Commissioners

Attachment No. 3

Airport General Consulting Professional Services - 2018					
RFP #: DOA-18-2A - Facilities & Systems					
Date: November 29, 2017					
Marketplace: BC, PBC, MDC					
DBE Project Goal: 18% - adjusted for past participation					
NAICS Description	NAICS Code	Estimated Percentage of	Available DBE	Total Available	Weighted Percentage
Engineering Services	541330	30.00%	149	1286	3.48%
Architectural Services	541310	45.00%	40	667	2.70%
Construction Management	236220	10.00%	239	815	2.93%
Testing Services	541380	2.50%	12	92	0.33%
Land Surveying & Mapping	541370	2.50%	24	144	0.42%
Planning Services	541320	10.00%	15	166	0.90%
Other Consulting Services	541690	0.00%	64	571	0.00%
Total		100.00%			10.75%

General Consulting Services Contracts	DBE Participation (to date)
R2006-2418	21%
R2009-1643	31%
R2011-1333	29%
R2014-0031	13%
Median Participation	25%
Adjustment for Past Participation	18%
DBE Project Goal	Percentage
	18%