EXHIBIT "A"
TECHNICAL SPECIAL PROVISIONS SCOPE OF SERVICES

Florida Department of Transportation, District Four West Palm Beach
AC Replacement Upgrade Project

1. PURPOSE:

The Florida Department of Transportation, District 4 West Palm Beach Project, located at 7900 Forest Hill Blvd., West Palm Beach, Florida 33413, hereinafter referred to as “Department”, seeks to obtain the services of a certified licensed and insured mechanical Heating, Ventilation, Air Conditioning (HVAC) contractor to perform the scope of services outlined in the Construction Documents in Attachments “A” through “G” listed below as part of the “Work” of this scope of services.

Attachment “A” – Construction Documents: Architecture
Attachment “B” – Construction Documents: Mechanical
Attachment “C” – Construction Documents: Electrical
Attachment "D” – Technical Specifications Volume 1
Attachment "E” – Technical Specifications Volume 2
Attachment "F” – Non-Technical Specifications
Attachment "G” – Mechanical Appendix

This Bid includes all associated work with the renovation of the central wing, including the following: Demolition of existing RTU-1A and all associated ductwork, diffusers, zone dampers, hangers, and accessories. Installation of new RTU-1 and addition of RTU-6, including associated Variable Air Volume (VAV) boxes, ductwork, controls, air services, appurtenances, piping, electrical, structural, etc. This work also includes the demolition and replacement of panel Main Distribution Panel (MDP), the automatic transfer switch and new service conductors to panel MDP and to the generator.

The Bid also includes associated ceiling replacement work as indicated in Attachment “A” Construction Document drawings sheets AD151A, AD151B, A131A, A131B.

Removal and proper disposal of existing unit(s), providing and installing one (1) brand new, fully operational, packaged heat pump, Roof Top Unit (RTU-1) and installing one (1) brand new, fully operational, packaged air conditioning RTU-6 (both as scheduled on the Construction Documents) that are fully compatible with the existing building air conditioning control system.

The successful bidder awarded this contract shall provide all labor, materials, equipment, supplies, shipping, handling, and any other incidentals and/or items required to install the new two (2) RTU package air conditioning units.

The new units shall be built in accordance with the approved unit options and specifications, approved wind load engineering plan, all other project related documents changes and/or revisions provided by the Department, and/or required by the inspecting authorities having jurisdiction.

The awarded contractor shall notify the department in writing in the event that there are discrepancies between the unit specified in this scope and what is actually available from the manufacturer. Such notification shall describe the nature of the discrepancy and suggested changes.

Bids will only be accepted from bidders that attended and signed in at the MANDATORY PRE-BID MEETING held at the jobsite. Proposals from bidders who did not sign in and attend the full pre-bid meeting will be rejected unopened.

2. SCOPE OF WORK:

The Contractor shall provide and install one (1) completely new 12.5-ton RTU Package Heat Pump Unit and one (1) 7.5-ton RTU Package Air Conditioning Unit and all associated VAV boxes, ductwork, controls, air services, appurtenances, piping, electrical, structural, etc.

The Contractor shall provide all the required services (including owner staff training) but not limited to the following:

A. All electrical work to disconnect, re-install all conduits, smoke detectors, electrical, control wiring, devices and software. The new electrical connections will be run from the current roof penetration and re-routed through the side of the roof curb. The new conduit will be routed to the new internal disconnect in the unit. Properly provide, repair, reconnect existing lightning protection by **certified Lightning Protection Contractor.**

B. Remove and properly dispose of the existing unit curb adapter.

C. Install new manufactured insulated curb adapter extension to raise the unit up to allow for proper drainage of the condenser end drain pan. The new curb is to be designed to eliminate the rust and corrosion evidenced by existing curbs. Ensure existing roof insulation continues under new RTU, within curb walls. Install new insulation under RTU, within curb perimeter, if none present.

D. Disconnect and dispose of existing internal ductwork, registers and grilles as per demolition plans, associated with existing RTU-1A. Replace with new ductwork, diffusers, registers, grilles as per scope drawings.

E. Disconnect, and dispose of all existing condensate piping. Provide and install new (appropriately sized) Schedule 40 PVC condensate drain lines, P-traps, all attached as needed to the new unit drain connections and route the new lines to the appropriate roof top drain.

F. Provide all crane Services, labor and related equipment for hoisting and rigging.

G. Proper disposal of the old units.

H. Recover existing refrigerant from the old unit and return in Department provided tanks.

I. New unit start-up by a Factory certified technician.

J. Provide certified test and balance of the new units.

K. Provide and install new return air smoke detectors in supply side of Air Handling System located downstream of filters and ahead of any branch connections.

L. Provide and coordinate all Permits and Inspections

M. The Contractor shall set up and connect the new air conditioning units to the Complete Direct Digital Control (DDC) System including programming, and graphics for front end Programmable Control (PC) of the new RTU units.

N. The Contractor shall be responsible for all necessary connections as required to support a fully functional Air Conditioning System.

O. Remove and properly dispose of existing panel MDP and its incoming service conductors.

P. Remove and properly dispose of the existing automatic transfer switch and the conductor wires from the switch to the generator.

Q. Provide new panel MDP, enclosed circuit breaker, and automatic transfer switch and associated conductors.

3. DEFINITIONS:

Department: The Florida Department of Transportation, District Four.

Department Building Superintendent: The Department's Facility Superintendent (or designee) responsible for the maintenance operations of the facility.

Department Project Manager: The Department's authorized employee (or designee) responsible for the management of this contract and the enforcement of all terms and conditions of this Agreement.

Department Normal Working Hours: The Department's normal working hours are Monday through Friday, from 7:00 a.m. to 6:00 p.m., excluding State Holidays or any day declared State of Emergency. The contractor will be notified by the Department in cases of official office closures other than the mentioned previously.

Facilities and Sites: FDOT buildings and grounds area located at 7900 Forest Hill Blvd., West Palm Beach, Florida 33413

Contractor: The firm retained by the Department to provide all labor, supervision, materials, equipment, supplies, tools, installation and disposal services, as described within the scope of services and shall be responsible for total compliance of all terms and conditions of this agreement.

Contractor's Project Manager: The point of contact person assigned to this project by the Contractor, with the signature authority for the Contractor, responsible for the overall contract management, authorized to make decisions regarding this contract, and responsible for ensuring that all terms and conditions of this contract are met.

Onsite Supervisor(s): The person assigned to this site by the Contractor and responsible for being the onsite Contractor liaison with the Department for normal day to day and minor emergency operations and for providing continual onsite supervision of all Contractor Staff(s) and sub-contractors assigned to this site as well as being present always while any work is being performed by the Contractor, its staff, and/or subcontractors at this site.

Sub-Contractor(s): Any sub-contractor(s) that is/are, or may be utilized, by the Contractor during this contract, which includes any modifications, changes, renewals and/or extensions thereto. Unless otherwise previously agreed to in writing by the Department, all Sub-Contractor(s) shall be required to meet the requirements of the scope of work, qualifications and contract documentations.

4. SITE CONDITIONS, CONTRACTORS' LOSS OR DAMAGE(S)

It shall be the responsibility of the Contractor to field verify the complete and total efforts necessary to provide all resources including cost required to expedite materials and equipment for this project. This includes the determination of an accurate site layout, all actual site conditions, the full extent of all work to be performed, and the conditions surrounding the performance, thereof.

The failure and neglect of the Contractor to become fully familiarized with the entire scope of work, including all related contract documents, the site conditions of the proposed work, the type, quantity, schedule, Scope of Work, any other resources required shall in no way relieve the Contractor from any obligation(s) with respect to his / her proposal or work performance.

The Contractor shall be responsible for any loss(es), theft(s), damage(s), replacement(s) for any of the Contractor's material and/or property items including, but not limited to, any tools, equipment, supplies and other items.

The Contractor shall be responsible for any injury sustained by its employees while providing services at the Department's office facility.

The Department shall not bear any risk for any loss(es) by the Contractor.

5. CONTRACTORS QUALIFICATIONS / CERTIFICATIONS, MINIMUM REQUIREMENTS:

Only qualified commercial HVAC contractors who meet the following qualifications will be considered for this project (a copy of certifications, licenses and experience must be submitted with the Contractors bid package).

The Contractor, and its installing technicians shall have provided similar type services, installations of the same products and systems for a similar type and size office complex to that of the Departments project as outline within this scope of service.

The Contractor awarded this project shall only use qualified, certified and experienced installing technicians for the same type of equipment, systems, and installation as being requested for this project.

The installation technicians for this work shall have a minimum of five (5) years’ work experience and factory trained on the proposed equipment.

The Startup Technician/s must be Certified on the installation requirements and programming parameters of the proposed RTU Air Conditioning unit.

The Contractor must provide documentation that they have provided services of this type, size and scope in the specified fields for at least ten (10) continuous years and shall provide a list of projects and contact information of similar project installation locations.

The Contractor shall adhere to, and must be currently properly licensed and insured as appropriate with all local and state codes such as but not limited to:

National Electrical Codes (NEC)

Suggested manufactures installation recommendations
American Society of Heating Refrigerating Air Conditioning Engineers (ASHRAE) standards

As required by herein these contract documents

6. EXISTING EQUIPMENT AND CONTROLS:

The following is a brief description of existing Trane RTU Air Conditioning Unit #1A and system Trane Tracer Summit Control.

A. 15-ton Trane Commercial RTU Air Conditioning:

This unit is located on the roof of a one-story office building and provides conditioned air for the central area of the building. Located in the center section of the building, RTU-1A serves the Reception area, two (2) small conference rooms, and one (1) large conference room. This area is served with four (4) zone dampers with wall mounted thermostats located in each zone.

B. Trane Tracer Summit Building Automation System:

This is the Building Automation System (BAS) that automatically controls the operation of the building air conditioning system. The Trane Tracer Summit BAS may currently be interfaced with other Building Management Systems (BMS) of the building, related to energy consumption, lighting, scheduling, etc.

7. NEW PROPOSED COMMERCIAL RTU PACKAGE AIR CONDITIONING UNIT:

The Contractors bid proposal shall be based on the replacement of existing RTU-1A, providing and installing a fully functional (1) 12.5-ton RTU Packaged Heat Pump Unit and (1) 7.5-ton RTU Package Air Conditioning Unit.

The new 12.5—ton RTU Package Heat Pump Unit (with supplemental heat) shall include at minimum, but not limited to the following standard features and options below:

A. Provide high-efficiency, downflow, multi-zone variable-air-volume unit with r-454b refrigerant, ddc controller, disconnect, single point power, and variable frequency drive.
B. Minimum normal operating outside airflow to be maintained regardless of unit supply airflow.
C. Cooling performance is at 95°F ambient conditions on condenser.
D. Provide insulated roof curb adapter. Verify dimensions of curb and duct connections/installation in field before ordering.
E. Provide duct smoke detector in supply side of air handling system located downstream of filters and ahead of any branch connections.

F. Provide unit with manufacturer's coil and casing corrosion protection. All fasteners shall be corrosion resistant.
G. Provide with modulating outdoor air damper, CO_2 sensor, and demand-controlled ventilation sequence.
H. Provide with modulating SCR control for secondary heating.
I. Provide with manufacturers seacoast and anti-corrosion protection (must pass 2,000 hour salt spray test per ASTM B117).
J. Air source heat pump (primary heat) performance based on ambient outdoor conditions of 44 deg f.
K. Secondary heat (electric) EAT / LAT performance is based on heat pump operation off.
L. Unit shall be double wall with 2-inch r-16 foam insulation.
M. Factory wired non-fused disconnect, factory wired vfds and 5ka short circuit current.
N. Stainless steel condensate drain pan and connection.
O. Manufacturer provided unit controls with internally mounted 24v control transformers.
P. Controls shall be compatible with BACnet open interface.
Q. Manufacturer provided room thermostat with space temp and rh.
R. Manufacturer provided low leakage return and outdoor air dampers.
S. Heat pump and electric heater may operate simultaneously or function during defrost.

- 460 Volt-60 Hertz - 3 Phase
- MERV 8 filters
- One (1) 3 HP Nema premium efficiency, supply fan motor, with one (1) direct drive plenum fan.
- Demand Controlled Ventilation Option
- One (1) 1.5 HP powered exhaust fan, 1,500 for normal mode and 3,500 cfm for economizer mode.
- 0-100% economizer control with dry bulb temperature and enthalpy.
- VAV – Discharge temperature control.
- UL Approval.
- Hinged access doors for access to compressors, electrical components, coils, filters, supply fan, exhaust blower and condenser end sections.
- Five-year Parts and Labor Warranty.

The new 7.5—ton RTU Package Air Conditioning Unit shall include at minimum, but not limited to the following standard features and options below:

A. Provide high-efficiency, downflow, multi-zone variable-air-volume unit with r-454b refrigerant, ddc controller, disconnect, single point power, and variable frequency drive.
B. Minimum normal operating outside airflow to be maintained regardless of unit supply airflow.
C. Cooling performance is at 95°F ambient conditions on condenser.
D. Provide insulated roof curb adapter. verify dimensions of curb and duct connections/installation in field before ordering.
E. Provide duct smoke detector in supply side of air handling system located downstream of filters and ahead of any branch connections.
F. Provide unit with manufacturer's coil and casing corrosion protection. All fasteners shall be corrosion resistant.

- 460 Volt-60 Hertz - 3 Phase
- MERV 8 filters
- One (1) 3 HP Nema premium efficiency, supply fan motor, with one (1) direct drive plenum fan.
- 0-100% economizer control with dry bulb temperature and enthalpy.
- VAV – Discharge temperature control.
- UL Approval.
- Hinged access doors for access to compressors, electrical components, coils, filters, supply fan, exhaust blower and condenser end sections.
- Five-year Parts and Labor Warranty

8. SYSTEM WARRANTY / GUARANTEES

The Contractor shall upon written notice from the Department, make any needed repairs to the installation at no additional cost to the Department.

The Contractor shall guarantee the work and materials utilized in this project for a minimum period of five years, sixty (60) months, which shall commence from the date of final acceptance by the Department.

The guarantee shall include parts, labor and materials and any needed delivery, work to be performed by certified HVAC Journeyman Technician with full knowledge and experience of the servicing equipment.

All defective or damaged parts and components shall be replaced with only new Original Equipment Manufacturer (OEM) parts as necessary to ensure a fully functional and correctly operating air conditioning unit at no additional cost during the warranty / guarantee period.

Unless otherwise agreed to in writing by the Department, all repairs shall be made and completed by the Contractor within thirty days of the date of the written notice by the Department. This guarantee shall include all labor, materials, material delivery and any other costs involved.

The Contractor shall provide the manufacturers' five year (60 month) warranty on all labor, parts and equipment.

9. SYSTEM COMMISSIONING

System start up and commissioning of the new RTU Air Conditioning unit shall be conducted by a certified HVAC Journeyman Technician with full experience in servicing this equipment, as needed to perform system checkout of all components, input required data and place the system in operation.

The Contractor shall also be responsible for checking all subsystems functionality and verifying the proper operation of all hardware and software. This testing shall be witnessed and accepted by a Department representative as part of the project close out. All operations and maintenance manuals delivered to the Department shall occur prior to customer training and final project acceptance.

10. WORKING HOURS

Unless otherwise agreed to in writing by the Department, all work shall be performed **during** normal working hours, 7:00 am to 5:00 pm.

11. PROJECT APPROACH

The awarded bidder shall:

A. Work harmoniously with the Department and all others that may be involved with this project.

B. Provide personnel that can communicate effectively with the Department in the English language, both verbally and in written form.

C. Use appropriate protective materials to protect all building interior surfaces, doors, floors, wall finishes, roofing membrane, and use safety cones to block off all areas being worked in. This specifically includes parking lot surface and roof protection needed due to material handling and material handling equipment.

Note: *Whenever a conflict arises in codes and/or standards, the Contractor shall apply the most stringent code and/or standard as applicable to the type of systems application/installation. Whenever such conflict exists, the Contractor shall notify the Department in writing of the conflict and the proposed resolution prior to any final decision and/or action.*

12. STAFFING and SUPERVISION

Contractor shall provide only trained and qualified personnel capable of safely, properly accomplishing the work in this Scope of Work in a timely manner, to ensure that all terms and conditions of this Contract are met.

The Contractor shall be responsible for all supervision and direction of the work performed by their employees, sub-contractor's agents and any other persons onsite, and shall always provide a full-time on-site supervisor on the premises to carry out this responsibility when work is being performed.

13. PROJECT SCHEDULE AND PRE-WORK MEETING

At the time of the pre-work meeting, the Contractor shall provide a proposed project schedule that clearly identifies targeted project milestones (listed in calendar days) related time durations for the project such as, but not limited to site preparation, installation work phases, equipment lead times, delivery dates, inspection, testing timeframes, anticipated building utility power outages, inspections and expected manpower requirements.

14. TRASH AND CLEANING

The Contractor shall be ultimately responsible for the proper handling, transport, disposal of all trash and debris that result from this project. Trash and other project related debris shall not be disposed into the Department's trash dumpster.

Trash, construction debris, remodeling debris, materials, supplies, equipment and other related items shall be maintained and moved in a safe manner without blocking walkways, parking areas, driveways and other related areas, as well as not to be stockpiled during Department Normal Working Hours in the previous listed areas.

The Contractor shall dispose of aerosol containers, and other material or chemical containers utilized during this project in conformance with the local, state and federal requirements.

The Contractor shall ensure that all work areas are cleaned to the Departments satisfaction prior to submitting final payment request.

15. SUPPLIES, INVENTORY AND EQUIPMENT

The Contractor shall be responsible for providing all equipment or tools that are or may be needed during this contract. The Contractor's provided equipment shall be of an industrial quality, constantly maintained in a proper, safe, like new serviceable working condition, as appropriate for the intended type of use.

The Contractor shall inspect the equipment on a regular basis as required to ensure proper and safe operation. Damaged equipment shall be properly replaced or repaired as needed before further use. Damaged equipment shall not be utilized on this project. Electrical cords must be properly maintained without cuts, splices, and exposed wires.

Materials and supplies shall not be stored within the facility without written approval by the Department Project Manager or the Building Superintendent.

Containers and dispensers used at the facility shall clearly indicate the contents in English (with other being languages optional in addition to the English labeling). Chemicals, supplies, and equipment shall be safely and properly stored.

16. DAMAGES AND NOTIFICATION OF DAMAGE(S)

It shall be the ultimate and sole responsibility of the Contractor to repair (and/or reimburse in a manner acceptable to the Department) for the total costs to repair of damage(s) caused to the facility, its content, equipment, systems or grounds, staff and visitors injury(ies) and property damage, by any direct and/or indirect action(s) of the Contractor, its employees or sub-contractors.

The Contractor shall bear the burden of all cost(s) including legal and court fees, for any repairs necessary to correct any damage(s) caused by the Contractor's operations, employees, equipment, with said costs being deducted from the Contractors invoice(s) and/or addressed via legal means.

Unless otherwise agreed to in writing by the Department, repair of any such damage to the facility, its contents, equipment, systems or grounds shall be completed within fifteen (15) days of the appropriate notification to the Department.

The Contractor shall provide and deliver written notification to the Department's Building Superintendent or designee, narrating the damages to the facility during its operations. All notifications shall be completed immediately after an occurrence or, if damages are incurred during night operations, during the next business day.

Notification shall be complete in detail including, at a minimum, identification regarding the type of damage, location, date, time and nature of the occurrence, explanation of any injuries to any personnel due to this occurrence and how the Contractor proposes to solve and address the matter.

Repair estimates shall be submitted to the Department's Building Superintendent within two (2) working days of each incident and/or accident occurrence.

Department’s review and approval of proposed repairs shall be made within two working days of the Department’s receipt of said estimates unless damages have a potential to cause a safety hazard or a breach in security at which time the Contractor shall make all necessary repairs immediately after first seeking the Building Superintendents approval.

All repairs completed by the Contractor are subject to the Building Superintendent's review for approval.

17. DEPARTMENT SECURITY PROCEDURES

The bidders shall not share any information related to buildings, workspaces, processes, or any general information about The Department of Transportation, either before, during or after completion of this procurement process, except as specifically needed to work on this project. Violation of this policy is grounds for breach of contract and termination of this contract.

Strict security shall always be maintained. Certain doors are required to be kept locked except when in use. The Department will identify these when the Contractor commences services.

All information written, spoken, electronically stored or other, within any workspace is considered Department property and must be considered confidential always and not shared with anyone.

The Contractor’s personnel shall wear Contractor-provided, lettered uniforms all times when on the Department premises during normal business hours.

The Contractor and its employees shall interact as needed with the security guard(s) including each person logging in and out via the Lobby badge station in the main lobby each day when arriving and departing.

Only the approved Contractor, employees and/or pre-approved subcontractor(s) shall be permitted on-site. Any unauthorized personnel, including visitors, family members, friends, acquaintances of the Contractor and/or its employee(s) / subcontractor(s) found within or on the facility's grounds may be directed to leave.

Violation of any departmental rules / policies / procedures may initiate Performance Compliance Penalties by the Department to be charged to the Contractor as provided by the contract.

18. GENERAL NOTES

It is the Department's intent to only have safe, well trained, competent, and professional employees assigned to this project to meet the Department's objectives.

The Contractor shall review the Scope of Work with each employee and ensure that each employee understands their work assignments, how to complete the assignments safely in accordance with applicable regulations (O.S.H.A., etc.) and how to comply with the Department's safety, security and acceptable job performance, site requirements.

The Contractor shall be responsible for any and all training (including all safety training) of its staff, this includes, but is not limited to, ensuring that the staff is properly trained for the tasks they are (or may be assigned), any cross training that might be required, the provision of any and all safety equipment that is (or may be needed), including but not limited to Personal Protective Equipment, any knowledge or skills testing, all physical / medical exams including any subsequent and/or recurrent exams.

All established rules and regulations set forth by the Department shall be observed by all workers and sub-contractors assigned to this project by the Contractor. Unless previously authorized by the Department, the Contractor, staff, and Sub-Contractor(s) shall not use, or unplug any office (or other types of) equipment such as but not limited to computers, printers fax machines, phones, copiers etc.

Formal Progress and other meetings may be scheduled by the Department as needed to ensure a smooth-running project, timely and proper project completion.

Smoking or vaping is prohibited within the building, on the roof, and within areas 25 feet or less of District 4 buildings.

19. DEPARTMENT RESPONSIBILITIES

The Department shall appoint a Project Manager for administering the terms and conditions of this contract.

The Department shall provide to the Contractor full access to the project site as well as other areas that are necessary for the Contractor to successfully perform all services as required by the terms and conditions of this contract.

The Department shall make available to the Contractor the necessary information to perform all work as outlined within the Scope of Services i.e., floor plans, electrical plans and other specifications as needed.

20.PAYMENT

The Contractor shall be paid according to the progress payments shown in the schedule below after the satisfactory completion of each deliverable as approved by the Department:

A. **25%** of total project amount upon providing the Department with proof the equipment order has been made with the manufacturer, including a guaranteed delivery date and all permits have been secured.

B. **25%** of total project amount upon the delivery of the new unit to the jobsite.

C. **20%** of the total project amount upon new unit start up, old unit and related removed items having been removed from site.

D. **20%** of total project amount upon new unit commissioning, and operational, and properly working with buildings HVAC control software.

E. **10%** Retainage paid upon the Department providing final acceptance, having received and approved the contractor's final invoice (which shall include a release of all liens certification document) from the contractor).

All punch list items (if any) shall be completed to the Department's satisfaction prior to issuing the project acceptance document and releasing final payment.