



Florida Department of Transportation

RICK SCOTT
GOVERNOR

1109 S. Marion Avenue
Lake City, Florida 32025

ANANTH PRASAD
SECRETARY

September 27, 2011

To: Proposal Holders

Addendum No: 1, E2Q23, Financial Project # 42786415211
District Materials HVAC Modifications in Columbia County

Base bid shall exclude controls work. Please see details in question and answer section below, and in revised scope of services.

Alternate #1 is deleted.

Scope of Services has been modified; please see attached REVISED scope.

Questions and Answers:

Mark Houston, Comfort Temp Company:

Per the Pre-bid meeting held yesterday for the District Materials HVAC Modification project, in reference to Johnson Controls. I would like to formally request herein that Johnson Controls submits their quotation for Controls Scope of work, clearly indicating what they are providing with their scope as well as any exclusions, prior to the bid date as an Addendum, as was recommended in our meeting yesterday.

ANSWER: The controls work for this project is being excluded from the base bid and Johnson Controls is being contracted with separately by the Department to complete the following work:

- Furnish and install a new unitary controller (UNT) for point of expansion
- Map points to all items tree
- Add points to user views and graphics as needed
- Modify sequences per Attachment D to Scope of Services
- Verify and check out system operations
- Coordinate with mechanical, electrical and test and balance contractors
- All field devices not mentioned above shall be supplied, installed and wired by others

The prime contractor and all of their sub-contractors shall schedule and coordinate their work with Johnson Controls.

Don Boykin, Southern Aire Contracting, Inc.:

All of the contractors bidding this project will need a Mechanical Equipment list and air distribution breakdown in order to get a Test & Balance price. There should be a set of mechanical drawings for this facility showing this information.

ANSWER: Please see attached mechanical drawings and air handling unit (AHU) specifications. Note that these drawings are old and may not be completely accurate. The contractor shall field verify all existing information pertaining to this project prior to submitting bid. Please contact John McCarthy at

386-961-7256 to schedule a field visit if required. Also note that the new air balance schedules are located under item #10 of the scope of services.

With regards to the Metasys DDC Control system, the METASYS DDC system is a proprietary DDC control system that is owned solely by Johnson Controls. No other company can work on, or provide any parts for this system. With that; All DDC controls that are required for the operation of the equipment needs to be provide and installed by Johnson Controls as a totally separate Sole Source contract.

ANSWER: Please see the answer above concerning the exclusion of the controls work from this contract. The contractor shall coordinate with Johnson Controls to ensure that all new field devices installed will be compatible with the existing Metasys control system.

Also Attached are revised Bidding documents that must be used for the October 12, 2011 letting or your bid may be found non responsive.

You must sign, date and fax a copy of this addendum back to me by close of business today to indicate receipt. A copy of this addendum must be returned with your bid.

Company Name

Signature

Date

Thanks,
Patsy Elkins, CPPB
Contracts Coordinator
Phone: 386-758-3703
Fax: 386-758-3791

REVISED SCOPE OF SERVICES

LOCATION OF PROJECT

Florida Department of Transportation
 District 2 Materials & Research
 1109 South Marion Avenue
 Lake City, Florida 32025

CONTRACTOR'S RESPONSIBILITIES

The contractor shall furnish all material and labor required to modify the Heating, Ventilation and Air Conditioning (HVAC) system in the Lake City District Materials building as specified below:

1. Boiler Replacement

Disconnect and remove existing boiler and furnish and install new outdoor Raypak H1-0724 (or equal). Removal and installation shall include all utility and plumbing connections as well as startup and testing requirements. (See Attachment F)

2. Asphalt Lab #10 Exhaust Modifications

General:

The new fan for the Asphalt Lab #10 shall have a maximum capacity of 2,770 cfm at 1-inch water gauge external static pressure. Furnish the new exhaust fan with a variable speed motor and variable frequency drive for speed control. This controls operation for this room follows the current design and provides makeup air to the Asphalt Lab through AHU-1. Overcooling and reheat of the supply air will be required during various conditions in order to maintain room temperature when the exhaust fan is in operation.

Control:

Exhaust fan speed control shall be regulated by the Direct Digital Controls (DDC) system to maintain exhaust cfm airflow at 100 cfm more than supply cfm as measured at AT-2. Exhaust terminal EV-1 shall be maintained to measure exhaust airflow rate. The integral damper position operation shall be disabled. The damper shall be removed or locked in the full open position. In lieu of maintaining EV-1, furnish a new flow station upstream of the new exhaust fan. Utilize the new flow station to measure exhaust fan airflow and regulate exhaust fan performance. (Recommend contractor consider underlined option due to actual EV-1 location being different than that shown on Attachment C) ~~Make all necessary changes to the DDC controls to automatically achieve the intended operation.~~ (Strike-through excluded from contract; controls work shall be performed by Johnson Controls) Provide power to the new fan. The fan variable frequency drive shall be as specified in Attachment B and mounted in AHU-1 mechanical room.

Exhaust Fan:

The new exhaust fan shall be connected to the 22" x 12" duct downstream from EV-1 and ducted to a new louver with plenum box. (See above recommendation) Provide necessary transitions with flexible duct connections to and from the fan. Provide independent support of the fan utilizing vibration isolation. Cap the unused remaining section of 22" x 12" ductwork airtight. The fan shall be SWSI capable of handling exhaust temperatures up to 250 degrees F. Fan shall be equal to Greenheck BSQ-140-15 as specified in Attachment A, Mark ILF-1A (second fan selection).

Louver:

Provide a new wall louver for the exhaust from the new exhaust fan. The new louver shall be equal to Ruskin ELF375X, 30" x 36", 2,800 cfm at 0.125 in. w.g. Furnish with 4 inch blades, back draft damper, bird screen and flanged frame. Finish shall be dark bronze. **Include exterior rain hood to match existing.**

Ductwork:

All ductwork and installation shall be in accordance with the latest duct construction standards of SMACNA for 2-inch pressure class.

3. **ASSOCIATED CHANGES REQUIRED IN CLAY LAB 11 EV-2 Room Return Air** Route a new section of 14' x 12' duct from the outlet of EV-2 to the 18" x 12" return duct to AHU-1 north of the mechanical room. Provide a balancing damper at the new connection. Cap unused sections of ductwork from EV-2 air tight.

4. **Disconnect and Remove Exhaust Fan EF-1**

Disconnect power and controls from EF-1. ~~and remove the fan in order to make room for new work.~~ (Strike-through excluded from contract) Remove the discharge duct to the roof vent. Cap the opening under the roof vent and make repairs to the under-deck roofing insulation at the existing vent hood. Add insulation equal to existing type and thickness at the new roof deck cap.

Disable exhaust terminal EV-3 as follows. Disconnect controls and lock each terminal unit's damper in the full closed position.

Add a nominal 30" x 30" return air grille with balancing damper at the 34" x 16" return air duct to AHU-1. The return air grille shall draw return air supplied to the Open Office #17.

5. **New Diffusers in Lunch Room**

New diffusers in Room 12 shall be one-way directional pattern diffusers with louvered face, all aluminum construction. Furnish Titus Model TDC-AA, 18"x18" neck with opposed blade damper, or equal.

6. **Modify Dust Collection System & AHU-2 Return Ductwork**

Modify dust collection ductwork to exhaust only the Rock Room and two existing drops at the south wall of the existing Sampling Room. Total exhaust flow rate will be 1,700 cfm. Remove the 12-inch round dust collection main up to the existing 10-inch round size in the Sampling Room. Provide new 10-inch round ductwork from the existing 10-inch up to the dust collector inlet. Refer to Attachment C for details of duct changes. Rebalance the dust collection fan for 1,700 cfm. ~~Modify the drive and replace the motor as required.~~ (Strike-through excluded from contract)

Modify the AHU-2 supply and exhaust/return system for floor plan changes in the Sample Room. Refer to Attachment C for details of duct changes.

Disable exhaust fan 7 (EF-7) and disconnect controls.

7. **AHU-2 VFD and Controls Modifications**

Replace the existing 5 HP constant volume fan motor and drive with a new premium efficiency 7.5 HP motor rated for VAV frequency drive service. Furnish an adjustable frequency drive with by-pass. Furnish a unit suitable for outdoor installation and with all features required to meet the intended sequence and interface with the existing Building Automation System (BAS). Provide for surge protection.

~~Modify the controls sequence of operation for system AHU-2 and associated equipment in accordance with Attachment D.~~ (Strike-through excluded from contract; controls work shall be performed by Johnson Controls)

8. **Building Pressure Controls (AHU-1 and AHU-2)**

See Attachment D for the set points and sequence of operation for the building pressure controls. Furnish controls components by Johnson Controls Metasys (or approved compatible alternates). (Contractor shall furnish, install and wire all controls field devices not specifically excluded in Addendum #1; controls work specified in Attachment D and Addendum #1 shall be performed by Johnson Controls)

9. Inspect and Seal Ductwork

Inspect all ductwork for leaks and seal all findings air tight. Significant leak was identified in 28"x14" supply duct from AHU-1 running north located in the attic over corridor 21. Inspect all ductwork insulation for AHU-1 and AHU-2 and make any required repairs.

10. Test and Balance

Refer to Attachment E for the Section 15898 Test and Balance. Rebalance the air side for systems AHU-1 and AHU-2 as follows:

ASPHALT LAB EXHAUST FAN - AIR BALANCE SCHEDULE

EQUIPMENT EXHAUSTED	CONNECTION	MAX. CFM EXHAUST
SHAKER SW CORNER	4 IN RND.	130
FUME HOOD W/ OVEN	12 IN RND.	1,290
DESPATCH OVEN W/ HOOD	12 IN. RND.	1,000
DESPATCH OVEN, NO HOOD	6 IN RND.	250
INFILTRATION	DOOR TRANSFER	100
TOTAL		2,770
NOTE: SET MINIMUM EXHAUST CFM FOR 1,500.		

AHU-1 AIR BALANCE SCHEDULES

AHU-1 AIRFLOW SCHEDULE			
CONTROL MODE	SUPPLY FAN OPERATION	SUPPLY AIR MAX. / MIN.	OUTSIDE AIR MAX. / MIN.
OCCUPIED AND UNOCCUPIED	VARIABLE VOLUME	9,035/ 2,260	3,965 / 695 NOTE 1.
NOTES: 1. MINIMUM OUTSIDE AIR IS DETERMINED BY THE BUILDING PRESSURE CONTROLS. ALL CASES PROVIDE OUTSIDE AIR FOR A POSITIVE PRESSURE OF 400 CFM.			

AHU-1 TERMINAL UNITS & ROOMS	NEW SUPPLY AIR (CFM)
Zone AT-1 NW Offices	660
Room 2	90
Room 4	180
Room 5	180
Room 6	150
Room 6A	30
Room 8	30
Zone AT-2 Asphalt Lab 11	3,270
Zone AT-3 Clay Lab 11	1,150
Zone AT-4 Conf. & Reception 1	1,300
Room 1 Lobby	630
Room 22	670
Zone AT-5 South Office	520
Room 23	365
Room 23A	155
Zone AT-6 South Office	575
Zone AT-7 Open Office	1,230
Room 15	60

Room 16	90
Room 17	850
Room 25	230
Zone AT-8 South Offices	330
Room 25A	75
Room 25B	255

AHU-2 AIR BALANCE SCHEDULES

AHU-2 AIRFLOW SCHEDULE				
CONTROL MODE	EXHAUST "ON"	SUPPLY FAN OPERATION	SUPPLY AIR MAX. / MIN.	OUTSIDE AIR MAX. / MIN.
NORMAL	NONE	VARIABLE VOLUME	5,070 / 1,270	820 / 520
EXHAUST-LOW	DC-1 <u>OR</u> EF-4	CONSTANT VOLUME	4,310	2,520 / NOTE 1
EXHAUST-HIGH	DC-1 <u>AND</u> EF-4	CONSTANT VOLUME	5,070	4,290 / NOTE 1
NOTES: 1. MINIMUM OUTSIDE AIR IS DETERMINED BY THE BUILDING PRESSURE CONTROLS. ALL CASES PROVIDE OUTSIDE AIR FOR A POSITIVE PRESSURE OF 400 CFM.				

LUNCH #12: MD-1 AIRFLOW SCHEDULE				
CONTROL MODE	EXHAUST "ON"	SUPPLY FAN OPERATION	COOLING SUPPLY AIR CFM MAX. / MIN.	HEATING SUPPLY AIR CFM
NORMAL	NONE	VARIABLE VOLUME	1,100 / 320	550
EXHAUST - LOW	DC-1 <u>OR</u> EF-4	CONSTANT VOLUME	1,100 / 320	550
EXHAUST - HIGH	DC-1 <u>AND</u> EF-4	CONSTANT VOLUME	1,100 / 320	550
NOTE: MD-1 CONTROL IS IN RESPONSE TO THE SPACE THERMOSTAT				

AHU-2 ROOMS	NEW SUPPLY AIR (CFM)
Room 12, Lunch	1,100
Room 18N, North Sample	340
Room 18W, West Sample	440
Room 18S, South Sample	1,000
Room 26 Rock Lab	2,190

All new controls which are to be connected to new or existing equipment and/or building controls must be compatible with the existing Johnson Controls Metasys System. **The contractor shall coordinate all mechanical and test and balance work and assist the controls agency by making necessary mechanical corrections to ensure adequate systems operations, and at no additional cost to the Owner.**

The Contractor's scope of work shall include preparation and submission of AS-BUILT Drawings of equipment and ductwork modifications, controls and sequence of operation for all revised systems and work.

All work shall be performed between the hours of 8:00 A.M. and 5:00 P.M., Monday – Friday, and shall be coordinated with the owners' project manager to ensure minimal disruption to the building occupants. The contractor shall clear all debris from work areas at the end of each workday.

All work shall be performed in accordance with all applicable building codes and permitted through the local permitting agency.

Contractor shall field verify all dimensions of required ductwork, equipment and air devices prior to submitting bid.

ALTERNATE #1

~~Lump sum deduction to remove cost for the following controls items:~~

- ~~_____ Install new unitary controller (UNT) for point expansion~~
- ~~_____ Map points to all items tree~~
- ~~_____ Add Points to user views and graphics as needed~~
- ~~_____ Modify sequences per Attachment D~~
- ~~_____ Verify and check out controls operations~~

~~Note: All field devices not listed above shall be supplied, installed and wired by the contractor. The contractor shall coordinate all mechanical and test and balance work and assist the controls agency by making necessary mechanical corrections to ensure adequate systems operations, and at no additional cost to the Owner.~~

Alternate #1 is deleted from the contract.