



# MANATEE COUNTY

February 23, 2011

All Interested Bidders:

SUBJECT: Invitation for Bid #11-1106-OV  
Manatee County Convention Center HVAC and Control Replacement  
Palmetto, FL (Project File #49664)

## ADDENDUM #2

**Bidders are hereby notified that this Addendum shall be acknowledged on page 00300-1 of the Bid Form and made a part of the above named bidding and contract documents. Bids submitted without acknowledgement of the Addendum will be considered incomplete.**

The following items are issued to add to, modify, and clarify the bid and contract documents. These items shall have the same force and effect as the original bidding and contract documents, and cost involved shall be included in the bid prices. Bids to be submitted on the specified bid date, shall conform to the additions and revisions listed herein.

**Bidders Note:** Additional questions shall not be accepted at this time as the stated deadline of **February 18, 2011** has lapsed. This deadline has been established to maintain fair treatment of all potential bidders, while maintaining the expedited nature of the Economic Stimulus that the contracting of this work may achieve.

## Attachments:

- Global MEP & Fire Engineering, Inc., Memorandum dated February 23, 2011 responding to questions received via email through close of business, February 18, 2011. (5 Total Pages)

Financial Management Department – Purchasing Division  
1112 Manatee Avenue West, Suite 803, Bradenton, FL 34205  
Phone: 941-749-3055 – Fax: 941-749-3034  
[www.mymanatee.org](http://www.mymanatee.org)

LARRY BUSTLE \* MICHAEL GALLEN \* JOHN R. CHAPPIE \* ROBIN DISABATINO \* DONNA G. HAYES \* CAROL WHITMORE \* JOE McCLASH  
*District 1      District 2      District 3      District 4      District 5      District 6      District 7*

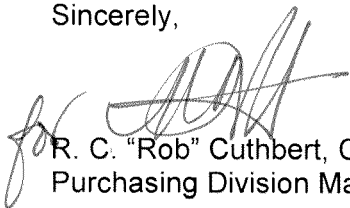
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If you have submitted a bid prior to receiving this addendum, you may request in writing that your original, sealed bid be returned to your firm. All sealed bids will be opened on the date stated:

**END OF ADDENDUM #2**

Bids will be received at the Manatee County Purchasing Division, 1112 Manatee Avenue West, Suite 803, Bradenton, FL 34205 **until 2:00 PM on March 4, 2011.**

Sincerely,

A handwritten signature in black ink, appearing to read 'for R.C. Cuthbert', is written over the typed name.

R. C. "Rob" Cuthbert, C.P.M, CPPO  
Purchasing Division Manager

Ov/ Attachments  
(5 Total pages)



# GLOBAL MEP & FIRE ENGINEERING, INC.

Mechanical • Electrical • Plumbing • Fire Protection

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8450 Linger Lodge Road, Bradenton, FL 34202  
Phone: 941-758-2551 Fax: 941-739-6383

IFB (#1106-OV)  
Manatee County Convention Center  
HVAC and Control Replacement

February 23, 2011

## ADDENDUM #2

The following items represent clarifications, additions, deletions, revisions, and/or modifications to the Contract Documents for the referenced project. This Addendum shall hereinafter be considered full part of the Contract Documents. Receipt of this document must be acknowledged on the Bid Form.

### Pertaining to Questions and Clarifications:

Question #1: Please clarify the reflective ceiling work that will be done by Manatee County. Will the work be done during phase 2? Is the work isolated to one area or throughout the entire building? Will the awarded contractor be responsible for any ceiling tile removal needed to access duct work, AHUs or electric heaters?

Answer #1: Manatee County Government will be replacing the ceilings in the Conference Center, including all Conference Rooms, and the Arena Lobby after July 29<sup>th</sup>, 2011. As indicated in Specification 01100-1.5-A-2, this Contractor is responsible for test and balance for the indicated flows, and final attachment to new devices.

Question #2: Are there any other areas of Manatee County work that will affect the work of the awarded contractor?

Answer #2: Multiple renovation projects are scheduled to take place throughout this project. Contractor shall coordinate with other contractors on site. No other work will impact this Contractor' ability to complete this project within the provided schedule.

Questions #3: On Mechanical Drawing M2.1 at the top of the page, there are 4 Chilled Water Pipes shown But they stop on this drawing and do not continue. The same 4 pipes are shown on drawings M2.2 & M2.3 and are noted to be "TEMPORARY CHILLER CONNECTIONS."? Where do they terminate?

Answer #3: Please refer to M2.2. Piping terminates outside of building with shutoff valves and blind flanges. Piping will be utilized to serve Chilled Water to the rooftop Air Handlers in event of failure of the Chillers on the Roof.

Question #4: Is the completion date for PHASE 3 the same date for PHASE 2?

Answer #4: The completion of Phase 3 shall be 30 days after completion of Phase 1 and Phase 2.

Question #5: We do not find any specifications for DUCTWORK, and AIR DISTRIBUTION, GRILLS, DIFFUSERS, ETC.

Answer #5: Ductwork scope is minimal, new diffuser/registers/grills are provided by County in another contract. Contractor shall make final connections from new duct to registers. Duct shall comply with SMACNA standard, as indicated in Note 1, Sheet M2.3.

Question #6: Are air separators required for the CHILLED WATER SYSTEM? There are a couple of expansion tanks shown on the piping drawings but we do not see any air separators which removes air from the system.

Answer #6: Automatic air vents are to be provided at the top of each buffer tank. The intent is for each buffer tank to act as an air separator.

Question #7: We are requesting a structural detail for installing the buffer tanks above AHU'S #3 & #4. The buffer tanks, should they become full of water, will each weigh over 4000 pounds plus the weight of the tank.

Answer #7: The roof curbs are specific to this project, and the Manufacturer shall account for the weight and attachment of the Air Handlers and the Buffer Tanks in the manufacture of curbs (ie the thickness and support fabrication and construction of the curb is to allow the air handling unit and the tank). The tanks shall be located adjacent to AHU's, over the return air plenum section of the curb.

Questions #8: According to the specifications regarding the AHU'S and CURBS for the AHU'S, we do not find that the curbs are made special to accept any structural framework for the tanks. The AHU'S fit flush over the curbs and we do not see any way to install the tank supports. In looking at the structural drawings, there are heavy structural supports beneath the 2 adjacent chillers, #3 & #4 that may provide easier supports to attach to, should you wish to relocate the 2 buffer tanks over to the chiller structures. On Structural Drawing S2.1, there is a detail for a support for a buffer tank but it is for the larger tank, BT-3. A portion of this support is existing.

Answer #8: The roof curbs are specific to this project, and the Manufacturer shall account for the weight and attachment of the Air Handlers and the Buffer Tanks in the manufacture of curbs (ie the thickness and support fabrication and construction of the curb is to allow the air handling unit and the tank). The tanks shall be located adjacent to AHU's, over the return air plenum section of the curb.

Question #9: HVAC BID ALTERNATE #2, Shown on Mechanical Drawing M4.0, we are directed to replace the existing Split-System units #1, 2, 2A, & 9 with new SPLIT SYSTEM UNITS. The Equipment Schedule, DX-S/S, on Mechanical Drawing M4.1, does not include the 4 units mentioned in ALTERNATE #2. We need the Equipment Schedule and Specifications for the

units to know what size the units are and the “bells & whistles” that the Engineer/Owner requires.

Answer #9: Attached is a Schedule for the Split Systems. Trane is basis of design. Acceptable manufacturers include Carrier, Dunham Bush, and McQuay, or equal if pre-approved by engineer prior to bid.

Question #10: Also, a part of this alternate instructs us to not install the chilled water piping shown for the Blower-coils that will be replaced with the Split Systems. Do we not install the entire piping that extends up to the roof as shown on drawings: M2.0, M2.1, M2.2, & M2.3?

Answer #10: Bid Alternate #2 shall include the cost reduction for not installing the chilled water piping that serves the chilled water Air Handlers indicated (units #1, 2, 2A, & 9) only. The temporary CWP piping for the rooftop Chillers is not included in Bid Alternate #2.

Question #11: The bid form requires pricing for Phase I, Phase II and Phase III (Control System). Do you need the control system price broken down into the Phases it serves I and II?

Answer #11: Bid Form Item #3 shall be the entire Controls System, and full implementation to meet the contract documents.

Question #12: Is the control system to be bid to the Mechanical Contractors or directly to the County?

Answer #12: The Control System is to be included in the bid, Bid Form Item #3. The control system is to be Automated Logic only. No substitutions. Automated Logic is the standard throughout County facilities, and County staff have undergone extensive training with Automated Logic Controls and programming.

Question #13: Drawing M5.3. The sequence of operations requires differential pressure readings across chillers 1 and 2 and chilled water minimum GPM through the chillers. Will differential pressure sensors and chilled water flow meters be shown on a revised drawing? Also will differential pressure sensors and chilled water flow meters be shown for chillers 3 and 4?

Answer #13: Although not shown on the control schematic, DP sensors are indicated and required for each chiller as per sequence of operations and specifications. A total of one flow meter is required for Chillers 1 & 2, on the manifolded CWP, refer to Specification 15200 for flow meter and water differential pressure transmitter types.

Pertaining to Drawings:

Sheet M4.0

Carrier has been added to the acceptable manufacturers list for Chillers 1, 2 and 3, 4. The Chiller acceptable manufacturer list now includes Carrier, Dunham Bush, JCI and McQuay, or equal if pre-approved by engineer prior to bid.

Contractor shall note that for the use of Carrier Chillers, the following must be observed.

**Structural requirements:**

The existing roof framing structure is adequate for the alternate Carrier units 30RB-150 @ 8564 lbs (CH-1 & CH-2) and 30RB-190 @ 11402 lbs (CH-3 & CH-4) however the dimensions of the support frames shown on the structural drawings S2.0 & S2.1 need to be adjusted for the alternate length & widths of these units. Though the unit widths and mounting locations are not shown on the Carrier drawings, Unit 30RB-150 is approx. 3'-8" shorter and Unit 30RB-190 is approx. 4'-2" longer. The existing support legs and rail beams must remain in the same location but the side brackets adjusted as needed. Contractor shall be responsible for adjustments required.

**Electrical requirements:**

CH-1,2; Carrier total unit power of 179.3kW, MCA of 303.2A, and MOCP of 350.0A are within the limits of the existing electrical design.

CH-3,4; Carrier total unit power of 236.9kW exceeds design allowance of 230kW.

Carrier MCA of 408.0A exceeds the design value of 400A (2 x 3/0 AWG).

Carrier MOCP of 450.0A exceeds the designed 400A circuit breaker.

The Contractor shall be responsible for re-sizing any conductors, conduits, circuit breakers, and other electrical equipment affected by the change from the basis of design.

Sincerely,

David E. Greene  
Senior Project Manager

**GLOBAL MEP & FIRE ENGINEERING, INC.**

8450 Linger Lodge Road,  
Bradenton, FL 34202  
(941) 758-2551

## Split System Schedule

AIR HANDLING UNIT					
Mark	-	AHU-9	AHU-2A	AHU-1	AHU-2
Manufacturer	-	Trane	Trane	Trane	Trane
Model	-	4TEC3F060	4TEC3F048	TWE090	TWE120
Total Cooling Cap.	BTUh	60,000	48,000	75,400	118,000
Sensible Cap.	BTUh	49,000	40,000	55,200	86,500
Supply Air Quantity	CFM	1900	1600	2200	4000
Outside Air Quantity	CFM	190	160	220	400
Electrical Char.	V/PH/Hz	208/1/60	208/1/60	480/3/60	480/3/60
SEER	-	13	13	11.2 EER	11.2 EER
Entering Air DB/WB	F/F	80/67	80/67	80/67	80/67
Leaving Air DB/WB	F/F	55/54	55/54	55/54	55/54
Ext. Static Press.	" W.G.	0.75	0.75	0.75	0.75
Filter	-	1" Disp.	1" Disp.	1" Disp.	1" Disp.
Electric Heat	kW	0	11.53	0	0
MCA	A	7.6	79	3.1	3.6
MOCP	A	20	80	15	15
CONDENSING UNIT					
Mark	-	CU-9	CU-2A	CU-1	CU-2
Manufacturer	-	Trane	Trane	Trane	Trane
Model	-	4TTA3060	4TTA3048	4TTA090	4TTA120
Outdoor Temperature	F	95	95	95	95
Electrical Char.	V/PH/Hz	208/3/60	480/3/60	480/3/60	480/3/60
MCA	A	24	9	17.7	23.4
MOCP	A	40	15	25	30
NOTES:		1,2,3	1,2,3	1,2,3,4	1,2,3

1. Provide with programmable T-stat, auxiliary drain pan which extends 6" beyond perimeter of unit all around. Include float switch to shut down upon rise of water level.
2. Provide low ambient and seacoast kits as well as motorized OA damper.
3. Coordinate electrical with electrical contractor.
4. AHU will require new smoke detector in supply duct.