

THE SCHOOL DISTRICT OF OSCEOLA COUNTY, FLORIDA

Purchasing/Property Records/Warehouse

817 Bill Beck Boulevard, Building 2000 • Kissimmee • Florida 34744-4495

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SCHOOL BOARD MEMBERS

- District 1 – Jay Wheeler
407-390-0505
- District 2 – Julius Melendez
407-922-5113
- District 3 – Cindy Lou Hartig
407-832-3999
- District 4 – David Stone, Vice Chair
407-933-2700
- District 5 – John McKay, Chair
407-957-4056



Superintendent of Schools

Michael A. Grego, Ed.D.

August 11, 2009

Audio Amplification System For the School District of Osceola County, Florida

Invitation To Bid (ITB) # SDOC-10-B-004 NM

Addendum # 2
(To be attached and become a part of the ITB)

Due date for submittals WAS August 13, 2009.

The new “Due Date” is August 18, 2009 at 2:00 p.m., at the School District of Osceola County, 817 Bill Beck Blvd., Building 2000, Purchasing Office, Kissimmee, Florida.

This Addendum is being issued to clarify areas, statements, requests, and specifications in the original document that needed an extra explanation or to answer questions that have been proposed by prospective bidders or received during the Pre-Proposal meeting which was held on July 22, 2009.

A. Questions/Answers:

1. **Question:** According to Attachment L, Item 2: there are 20 Media Center (Split System) needed for new construction. The Audio Enhancement Ultimate system has been used as the basis for the specification, however this system does not have the ability to combine two rooms or to split source between two areas. Please explain, the intended usage and how this is expected to be accomplished using this system.

Answer: For the Media Center (Split System), the School Board will be using the Audio Enhancement Innovator or equivalent system. See Attachment “A”, this Addendum.

- a. **Question:** If the intent is to allow for a large area to be split into 2 separate areas with independent sources, would the county be open to an alternate solutions?

Answer: As stated in Addendum #1, District personnel will review and compare all specifications of proposed equipment to the Audio Enhancement equipment specifications to determine if the proposed equipment meets or exceeds the Audio Enhancement equipment performance specifications.

2. **Question:** What has been determined as the required system output in dB that is required at the listening position(students)?

Answer: There are no specified requirements for the system output in dB. The bid requirement is to meet minimum equipment specifications addressed in this bid documents.

3. **Question:** Will the school board provide a shelf for the electronics, or will the electronics be supported by various methods, i.e., cabinets, desks and other convenient surfaces?

Answer: The School Board will provide convenient support surface for electronics.

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Student Achievement – Our Number One Priority

Districtwide Accreditation by the Southern Association of Colleges and Schools

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An Equal Opportunity Agency

- 4. **Question:** Do the classrooms require the amplifier to have 1 to 1 channel outputs to speaker ratio? (Speaker count per room size to be determined by Audiology consultant and AV integrator)
Answer: Equipment supplied by the Awarded Bidder must meet or exceed the minimum specifications of this ITB.
- 5. **Question:** Is there a specific style of Panduit/generic conduit to be used for all installations? Or will AV integrator be required to match pre-existing materials?
Answer: No. When installers must install conduit, they must meet code for this project.

B. Emergency/Storm related catastrophe-Contractor Agreement form. This Bid/Contract does not require this Agreement.

C. Refer to page 47 of the original bid document, the Title, which reads:
ATTACHMENT "K"
CLASSROOM AUDIO AMPLIFICATION SYSTEMS
(50 Watt System *ONLY*)

Change to read:

ATTACHMENT "K"
CLASSROOM AUDIO AMPLIFICATION SYSTEMS
(50 and 100 Watt Systems *ONLY*)

D. Add New Product Specifications; See Attachment "A" for these specifications for a 100 Watt System.

If you have any questions regarding this Addendum #1 please contact Neil D. McDonald, Purchasing Supervisor by phone at (407) 870-4625 or by email at mcdonaldn@osceola.k12.fl.us

Sincerely,



Cheryl L. Olson, CPPO, C.P.M., CPM, FCCN
Director of Purchasing and Warehouse Services

CLO/ndm

Acknowledgment of Addendum #1 by Vendor:

This addendum shall be completed by the Vendor and returned with the bid response. If a bid has already been submitted, this addendum must be submitted to the above address in a sealed envelope, which is marked on the outside: Addendum to Bid, Bid title and number.

This is to acknowledge receipt of this addendum, which will become part of the Bid document.

_____	_____
NAME (TYPED OR PRINTED)	TITLE
_____	_____
SIGNATURE	VENDOR NAME
_____	_____
DATE	PHONE NUMBER

ATTACHMENT "A"

PART 1 – PRODUCTS

1.1 GENERAL

- A. The system shall provide sound enhancement to amplify a teacher's voice to overcome the deleterious effects of background noise, reduce teacher fatigue and assure speech clarity of class presentation and participation. Provide an infrared wireless system with no channel restrictions, no interference, a room contained signal and inputs for (2) microphones, T.V., VCR, CD/Tape and computer and output for personal FM radio systems. Provide the ability to power up to eight speakers. System includes speakers, cables, microphones, transmitters, receivers, diodes, nickel metal hydride rechargeable batteries, chargers, etc., as required for a complete operational system.
- B. Provide a complete system by Audio Enhancement or equivalent.

1.2 CLASSROOM SOUND AMPLIFICATION SYSTEM (CSAS) EQUIPMENT:

- A. Receiver/Amplifier (Audio Enhancement Innovator or equivalent):
- B. Provide a Receiver/Amplifier with ability to provide functions described above with performance as follows:
 - 1. Audio Power: 100 Watts RMS
 - 2. 1% percent THD across full frequency range of amplifier.
 - 3. Stereo – The amplifier must supply true 2-Channel stereo sound
 - 4. Frequency Response: 40 Hz to 20 kHz
 - 5. Power Requirements: 24VDC 3.5 Amp
 - 6. Receiving frequencies: 2 selectable frequencies from 2.00 MHz to 4.00 MHz
 - 7. Signal-to-noise: >65dB
 - 8. External Sensor(s) as required (1 minimum)
 - 9. Mounting Bracket as required
 - 10. RS-232 Control
 - 11. System must have the ability to accommodate 4-Infrared wireless microphones simultaneously – Addition of external receivers to accommodate 4 channels shall not be acceptable
 - 12. PA Interface – PA Interface must be a hard wired connection to the amplifier via a terminal block. Systems utilizing a inductive sensing circuit shall not be acceptable
 - 13. Controls: (The system must have available the following controls)
 - a. Volume: 4 teacher controls, 1 for each infrared wireless microphone.
 - b. Equalizer: 3-Band (low, mid, and high frequencies).
 - c. Speaker: 8 individual volume controls.
 - d. Master Volume: 1 control
 - e. Power: 1 switch.
 - f. Volume Auxiliary Inputs
 - g. Voice Mute on/off selection
 - h. PA Level Control
 - 14. Connections – The following connections must be available:
 - a. 4 Stereo Auxiliary inputs for TV/DVD, VCR, CD/Tape player or a computer (RCA type, Hi Z, Mixed)
 - b. Dedicated Line output
 - c. 8 independent speaker connections

- d. 9-Pin –D-Sub – RS-232 Connection
 - e. Terminal Block Connection for PA Interface
15. Infrared level control of microphone level from the teacher microphone, via the infrared wireless system must be provided.
 16. System must have the ability to decrease the level of the multi-media presentation when the teacher speaks. This must be done actively, only quieting the multi media when the teacher is actually talking into the microphone. (Teacher Voice Mute)
- C. 4-Channel Body Pack Transmitter (Audio Enhancement Infrared Enhanced Teardrop Microphone or equivalent):
1. Provide a 4-channel body pack transmitter with performance as follows:
 2. Sub-carrier frequencies: 4 selectable frequencies from 2.00 MHz to 4.00 MHz
 3. Audio distortion: <1.0% (±40kHz deviation @ 1kHz)
 4. Integrated microphone.
 5. Internal charger circuit.
 6. Built-in infrared emitters.
 7. Power button functionality
 - a. Power on – turns the microphone on when microphone is off and button is pressed
 - b. Mute – mutes the microphone when pressed and released once microphone is turned on
 - c. Power Off – push and hold to turn power off
 8. External Inputs
 - a. Provide an inputs for an external microphone
 - b. Provide an input for a stereo auxiliary input (Mixed to Mono in microphone)
 9. Microphone Element – The teacher microphone shall utilize a 10mm microphone element to insure optimum frequency response and maximum pickup of teacher's voice.
 10. Power 1 - "AA" NiMH Batteries (Systems using 2 batteries will not be considered)
 11. Provide remote volume control for the system from the teacher's transmitter
 - a. Volume control via the infrared wireless microphone system to allow the teachers to remotely adjust their own volume level.
 - b. Volume control for the other channel from the teachers microphone
 - c. Volume control for the auxiliary inputs
 - d. 'F' (Function) Button – Provide remote control functionality that allows for enabling additional multi-use functions from the teacher microphone.
 12. Smart Sensor Charging Circuit
 - a. Charging circuitry in microphone must have the ability to sense what type of battery has been placed in the microphone. The charging circuitry must also carefully manage the charge and dis-charge cycles of the batteries to maximize battery life.
 - b. The charging circuitry must be able to distinguish between NiMH, NiCad and Alkaline batteries.
 13. Auto-Charge Detect – the microphone must have the ability to sense when the charger is detected, and automatically put the microphone into the charge mode.
- D. 4-channel hand held transmitter (Audio Enhancement Infrared Handheld Microphone, or equivalent):
1. Sub-carrier frequencies: 4 selectable frequencies from 2.00 MHz to 4.00 MHz
 2. Integrated microphone
 3. Internal charger unit.
 4. Power 1 - "AA" NiMH Batteries (Systems using 2 batteries will not be considered)
 5. 1/8" (3.5mm) auxiliary input connection - Provide an input for a stereo auxiliary input (Mixed to Mono in microphone)
 6. Operational Modes – the handheld microphone must be equipped with two operational

modes

- a. Push-to-Talk Mode – the user simply depressed the power button to talk, and when released the microphone automatically turns off – this provides for a number of separate microphones to be used consecutively and greatly reduces the chance of channel interference
- b. Power-On Mode – The user depresses the power button, and slide is vertically into the on position – this holds the microphone in the on state for continuous operation
7. Volume control for microphone level/auxiliary input level
8. Microphone Element – The Handheld microphone shall utilize a 10mm microphone element to insure optimum frequency response and maximum pickup of teacher's voice.
9. Smart Sensor Charging Circuit
 - a. Charging circuitry in microphone must have the ability to sense what type of battery has been placed in the microphone. The charging circuitry must also carefully manage the charge and dis-charge cycles of the batteries to maximize battery life.
 - b. The charging circuitry must be able to distinguish between NiMH, NiCad and Alkaline batteries.
10. Auto-Charge Detect – the microphone must have the ability to sense when the charger is detected, and automatically put the microphone into the charge mode.

E. EXTERNAL DOME SENSOR (Audio Enhancement Infrared Dome Sensor, or equivalent):

1. Power: Powered by receiver.
2. 360-degree Reception Angle, Ceiling mounted dome sensor.
3. Cable: Minimum 32.8' (10m), Co-Ax Cable (Provide Plenum rated only where required by code)
4. Mounting: Metal bracket.
5. Internal construction of diodes in 360-degree sensor shall be lensed to provide superior infrared reception. Unlensed diodes shall not be considered.

F. Loudspeaker:

1. Provide complete distributed ceiling mounted speaker system (back box, speaker, grill, etc.), number as required (minimum 4, no cluster) with performance and safety features as follows:
 - a. Power rating: 60 watts RMS/100 watts max.
 - b. 8 ohms.
 - c. 63-20,000 Hz
 - d. Quick connect/disconnect terminals
 - e. Tuned Ported Enclosure – 4" Cone Driver
 - f. Integral Structural Tie-Off – for connection speaker to structural element
 - g. Positive Locking Grill Cover
 - h. Tile Bridge

END OF ADDENDUM #2