

November 1, 2023

Senator Rick Girdler, Co-Chair
Representative Deanna Frazier Gordon, Co-Chair
Capital Projects and Bond Oversight Committee
Legislative Research Commission
Capitol Annex Building – Room 136
702 Capitol Avenue
Frankfort, Kentucky 40601

Subject: Sundry Research, Scientific and Medical Equipment

Dear Senator Girdler, Representative Frazier Gordon and Honorable Members of the Capital Projects and Bond Oversight Committee:

Pursuant to KRS §45.760(5), the University of Kentucky hereby reports the purchase of the following items of research, scientific and medical equipment in excess of \$200,000. Money specifically budgeted and appropriated by the General Assembly for another purpose or program was not used to acquire these items.

- A SLM280 Powder Bed Fusion System has been purchased from SLM Solutions NA, Inc. for use by the Institute for Sustainable Manufacturing. The Powder Bed system is a fusion-based additive manufacturing technology. The equipment utilizes a high powered laser to selectively melt metal powder feedstock, then prints metals with highly complex geometries and features at multiple length scales and volumes. The total cost of the research equipment was \$562,195.50 and was purchased with federal funds from an Army Research Office grant. The item will be located at the Center for Robotics and Manufacturing Systems building in Lexington.
- A GL7 Additive Friction Stir Deposition (AFSD) system has been purchased from Bond Technologies for use by the Institute for Sustainable Manufacturing. The Bond GL7 is a highly unique AFSD additive manufacturing system as it utilizes a highly novel solid-state methodology to rapidly deposit feedstock without melting. Along with its large build volume, the GL7's high deposition rates and 5-axis capability make it an ideal technology for rapidly manufacturing large-scale aluminum and copper components. The Department of Defense is heavily reliant on such components and has identified AFSD as a technology to replace and/or augment the supply chain for large-scale components as traditional manufacturing techniques have largely moved offshore. The total cost of the research equipment was \$1,126,866 and was purchased with federal funds from an Army Research Office grant. The item will be located at the Center for Robotics and Manufacturing Systems building in Lexington.
- A HD2 Aerosol Jetting (AJ) Additive Manufacturing Machine has been purchased from Optomec for use by the Institute for Sustainable Manufacturing. The AJ machine is capable of direct printing ceramic and composite high temperature aerosolized feedstock to produce single or multi-layered structures onto a wide variety of substrates. Typical features and structures include sensor and circuits, as well as micro-structured coatings.

This piece of equipment represents an emerging state-of-the-art additive manufacturing process which is being investigated by UK in collaboration with the Army Research Laboratory. The total cost of the research equipment was \$358,869 and was purchased with federal funds from an Army Research Office grant. The item will be located at the Center for Robotics and Manufacturing Systems building in Lexington.

- A Hypersonic Inductively Coupled Plasma (HICuP) wind tunnel has been purchased from Tekna Plasma Systems, Inc. for use by the Department of Mechanical and Aerospace Engineering. The HICuP wind tunnel tests thermal protection system materials under extreme conditions, including surface temperatures of 2000 degrees Celsius and with pressures relevant to atmospheric re-entry. This equipment will be used to conduct experiments in the fields of space capsules, hypersonics and energy storage. The total cost of the research equipment was \$999,500 and was purchased with federal funds from an Army Research Office grant. The item will be located at the Ralph G. Anderson Building in Lexington.
- A Spinning Disk Confocal (SDC) microscope and components have been purchased from Intelligent Imaging Innovations Inc. for use by the Department of Molecular and Cellular Biochemistry. The SDC allows high-speed images in real time and enhances and improves detection of developments in thin cell samples. This equipment will integrate with existing microscopy to accommodate the evolution of research imaging needs. The total cost of the research equipment was \$228,796.18 and was purchased with federal funds from a National Institute of General Medical Sciences grant. The items will be located at the Biomedical Biological Sciences Research Building in Lexington.
- A Sonopet iQ Ultrasonic Aspirator Console has been purchased from Stryker for use by UK HealthCare. The Sonopet iQ combines integrated power, pulse control, suction and irrigation to give physicians the ability to precisely resect fibrous and soft tissue in critical areas. This all-in-one resection solution designed for neurosurgery will increase efficiency and patient outcomes. The total cost of the medical equipment was \$248,113.43 and was purchased with UK restricted funds. The item will be located at UK Albert B. Chandler Hospital in Lexington.

Please advise if you have any questions or if you would like additional information.

Sincerely,



Angela Martin
Vice President for Financial Planning and Chief Budget Officer

cc: Elizabeth Baker
Teresa Centers
Kristen Cheser

October 31, 2023

Senator Rick Girdler
Representative Deanna Frazier Gordon
Capital Projects and Bond Oversight Committee
Legislative Research Commission
Capital Annex Room 34
Frankfort, KY 40601

RE: Equipment purchased in FY23

Dear Senator Gridler and Representative Gordon:

In accordance with provisions of KRS 45.760(5), I am writing to report new equipment purchases. The equipment purchases for FY 23 are listed in Attachment A for a total of \$3,445,829.

The equipment purchases will support research in various departments at the university including Speed School Mechanical Engineering, Chemistry, Pharmacology, BioLab and Spinal Research.

Please contact Kim Noltemeyer at 852-5699, if you have any questions regarding the equipment purchase. Thank you for your continued support.

Sincerely,

Meg Campbell

Meg Campbell
AVP University Planning Design and Construction
University of Louisville

cc: Dan Durbin, CFO
Rick Graycarek, VP
Shaun McKiernan (CPE)
Carla Wright (OSBD)

DEPARTMENT	EQUIPMENT	PURCHASE AMOUNT	DATE OF PURCHASE	FUNDING	PURPOSE
Environmental Health Institute	Xevo TQ Absolute System	\$408,398	9/1/2022	NIH	Use in research projects focusing on environmental toxicology, cardiovascular, hepatic and metabolic disease, exercise science and immunology.
Speed School - Mechanical Engineering	rePowder Ultrasonic Research	\$241,000	11/1/2022	Grant and department discretionary funds	Facilitating additive manufacturing research projects.
Environmental Health Institute	JPK Nano Wizard 4 XP AFM head	\$316,454	4/1/2023	NIH Grant	System will be used for the interrogation of tissue mechanics.
Chemistry Department	EPR System EMX plus Console	\$272,557	4/1/2023	NSF-MRI Award	Provide information on the molecular and electronic structure of paramagnetic molecules in chemistry, biology, and physics.
Center for Predictive Medicine - Pharmacology	Micro-PET/CT Imaging System	\$799,600	1/1/2023	NIH Grant	Imaging and scanning system for research.
Center for Predictive Medicine - Pharmacology	9122EW Cage & Rack Washer	\$452,912	5/1/2023	NIH Grant	Cage and rack washer to replace existing washers.
Center for Predictive Medicine	PAC3500 Control System	\$258,729	5/1/2023	Grant	Replacing existing controllers that has reached end of life and would no longer be supported by the manufacturer.
Spinal Cord	Refurbished-Orbitrap Exploris	\$696,179	8/1/2022	Grant	Used to collect high dimensional quantitative and qualitative proteomic datasets on prokaryotic and eukaryotic samples.
	EQUIPMENT PURCHASES IN FY23	\$3,445,829			



November 3, 2023

Capital Projects and Bond Oversight Committee
702 Capital Avenue, Room 34, Capitol Annex
Frankfort, KY 40601

RE: \$1,645,000 Robertson County School District Finance Corporation
School Building Revenue Bonds, Series of 2024

Please find enclosed a Bond Payee Disclosure Form and Plan of Financing related to the above-referenced series of Bonds. The Bonds will be used to finance HVAC replacement.

We would like to go ahead and submit the plan to Bond Oversight so that we will be ready to proceed with the bond sale shortly. The Bonds will be funded with 100% Local Funds.

Please process this bond disclosure form for review by the Bond Oversight Committee at the next meeting. Should you have any questions or require any additional information, please contact our office.

Sincerely,

A handwritten signature in black ink, appearing to be 'L Theinert', with a long horizontal flourish extending to the right.

Lincoln Theinert

Enclosures

147 East Third Street
Lexington, KY
40508

859/977-6600

fax: 859/381-1357

www.rsamuni.com

BOND PAYEE DISCLOSURE FORM

Par Amount:	\$1,645,000	
District	Robertson County School District	
Issue Name:	School Building Revenue Bonds, Series 2024	
Purpose:	HVAC Replacement	
Projected Sale Date:	Q1 2024	
First Call Date:	8 Years at par	
Method of Sale:	Competitive Bids	
Place/time of sale:	Parity/SFCC, Frankfort, Ky. / TBD	
Bond Rating:	Moody's: "A1"	
Bond Counsel:	Steptoe and Johnson, Louisville, KY	
Fiscal Agent:	RSA Advisors LLC, Lexington, Kentucky	
Date received by SFCC:	/ /	<i>To be filled in by SFCC</i>
Date scheduled for Committee review:	/ /	<i>To be filled in by SFCC</i>

	SFCC Portion	Local Portion	Total
Estimated par amount of Bonds:	\$0	\$1,645,000	\$1,645,000
% Share of total Bonds:	0.00%	100.00%	100.00%
Estimated average annual debt service:	\$0	\$141,115	\$141,115
Estimated debt service reserve:	\$0	\$0	\$0

Estimated Cost of Issuance:

Fiscal Agent, Bond Counsel, etc	\$0	\$17,450	\$17,450
Special Tax Counsel	\$0	\$0	\$0
Number verifications	\$0	\$0	\$0
Bond Rating & Bank Fee	\$0	\$11,550	\$11,550
Underwriter's Discount	\$0	\$32,900	\$32,900
Credit Enhancement	\$0	\$0	\$0
Total Cost of Issuance:	\$0	\$61,900	\$61,900

Anticipated Interest Rates:

5 Years: 4.350% 10 Years: 4.750% 15 Years: 4.750%
20 Years: 5.000%

Notes: No Tax Increase required