



June 26, 2015

Ken Popplewell
Director of Purchasing
C.B. Young Jr., Service Center
3001 Crittenden Drive
Louisville, KY 40209

Re: Request for Proposal #3048

Dear Mr. Popplewell:

For years Challenger Centers across the Nation engage students using hands-on exploration and problem solving experiences. These programs help students strengthen their problem based learning skills while inspiring them to pursue careers in a variety of STEM fields. Keeping this amazing science education asset operating in Louisville, and making it accessible to more students, is a mutual interest of Kentucky Science Center and JCPS.

We are extremely excited to explore a collaboration that would allow continued Challenger missions at the Shawnee school facility, operated and facilitated by Kentucky Science Center. Science Centers as a whole integrate inquiry based, open ended exploration in all of their programs and experiences, and have been for at least 30 years. The Kentucky Science Center's commitment to inquiry-based educational programs and services that stress critical thinking and problem-solving skills is uniquely poised to oversee programs at the Challenger Center. Our programs allow students to conduct research, integrate theory and practice and apply knowledge and skills to develop a reasonable solution to a complex problem.

Nearly 35,000 on site school field trip students engage in interactive exhibits, classes and labs that stress engineering practices. They engage in a rich variety of offsite and distance-learning based workshops, camps, after school enrichments, and summer programs. Our Kentucky Science Center educational staff, carefully selected and trained against specific requirements for informal learning pedagogy, represent a broad background in science and science education.



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Jefferson County Public Schools
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Senior members of the Science Center staff have either managed a Challenger Center in the past or supervised very similar space simulation-based experiences.

We have sent our Kentucky Science Center camp students to the Challenger experience several years in a row, and know the power of the program. We've seen firsthand how closely the goals and resources within the Challenger Center mirror our own work in the educational STEM field. The West End location supports our commitment to bringing our "DO SCIENCE" message to the children and families of that area, and in fact we have formed successful program partnerships with the two Boys & Girls clubs in the Shawnee and nearby neighborhoods.

In 2013 Kentucky Science Center began "Unbridled Science", a five year strategic plan to increase science literacy across the Commonwealth and southern Indiana, inspiring curiosity and allowing individuals of all ages to embrace the wonder of science. Huge strides towards its outcome have been achieved and the Science Center now has operations and services across the Commonwealth.

Supporting and promoting these efforts are the Center's active Communications and Development teams marketing to, forming partnerships with and receiving support to enable and support our products and services. It is the Center's ability and experience in creating and sustaining programs and partnerships that are not only educationally but financially successful that make us an ideal operational partner.

Regards,

A handwritten signature in black ink, appearing to read "Joanna E. Haas". The signature is fluid and cursive, with the first name "Joanna" being more prominent than the last name "Haas".

Joanna E. Haas
Executive Director



In response to
Request for Proposal #3048
Issued by the School District of Jefferson County

PROPOSAL FOR CHALLENGER CENTER OPERATIONS

SUBMITTED TO JEFFERSON COUNTY PUBLIC SCHOOLS
by

KENTUCKY SCIENCE CENTER
on

June 26, 2015



Challenger Center Program (Proposal #3048)

Abstract

The Kentucky Science Center proposes to operate the Academy @ Shawnee Challenger Center (Shawnee Challenger) as an offsite 'arm' or campus of the Science Center, serving school field trip audiences mirroring those served by our flagship facility downtown; specifically, grades 1 through 12, with particular emphasis on grades 4 through 11. The Science Center anticipates that in the first year of operation, 150 2-hour 'flights' will be conducted serving 4,530 students; this projection is based on activity at similar sites and on the prior experience of certain senior level staff with experience in Challenger Centers specifically and space simulation immersion experiences generally. We anticipate that of those students served, approximately 70% will come from Jefferson County Public Schools (JCPS). Secondly, the Kentucky Science Center will utilize the Shawnee Challenger facilities to deliver after-school and out of school Challenger simulations to student-centered organizations currently served by the Science Center such as Boy and Girl Scout programs, Home School labs, Boys & Girls Club workshops and educational Birthday Parties. These programs are designed to integrate problem solving, STEM topics to the general public in a variety of informal mission themes. The after school programs will be modeled after some of our other after school work in Boys and Girls Clubs across Kentucky and Indiana, and the work we've done with JCPS 4th grade students and Oldham County K-1st grades and 6th-7th grades. Finally, the Science Center will actively pursue corporate customers for team building events and rentals during the evenings and/or weekends.

Proposed Program Model

School Field Trips

As with all of its educational programs and services, the Science Center will ensure that Challenger programs match the performance expectations of the Next Generation Science Standards, (NGSS) with emphasis on engineering practices and cross-cutting concepts. Additionally, the Kentucky Science Center will utilize all 3 missions currently owned by the Shawnee Challenger - "Rendezvous with a Comet", "Voyage to Mars" and "Return to the Moon"- so as to maximize reach into area public, private and home schools. The 3 mission simulations will allow the Science Center to meet NGSS standards not only in middle but in high school thus expand the core target student audience from grade 4 through 12. For grades 3 and below, the Science Center will either create or obtain from Challenger Center for Space Science Education successful programs offered at many other Challenger Centers nationwide targeted specifically at grades K through 3 (such as the Junior Astronaut Program @ Challenger Center St. Louis). The Science Center anticipates offering up to 3 flights per day as available for booking; 2 for school field trips and an afternoon mission for after and out of school programs. Additionally, the Kentucky Science Center will offer program packages that combine a Challenger mission with on-site pre and post mission workshops such as rocket building, a digital space exploration-themed digital film at the Science Center, and potential inclusion of the portable planetarium courtesy of U of L's Gheen's Planetarium. Kentucky

Science Center will work with a designated member of JCPS staff to explore a variety of opportunities to encourage optimal booking times and dates for JCPS students.

Since the Academy @ Shawnee is an aeronautics magnet school, Kentucky Science Center will also work with JCPS staff to accommodate specific goals to promote the Shawnee Challenger to 4th grade students within JCPS to highlight the Academy at Shawnee's unique programs and curriculum for their middle school selection. To the extent allowed by the Challenger Center for Space Science Education, the Science Center will collaborate with the designated JCPS curriculum expert(s) to align field trip experiences with approved district curriculum. It is the Science Center's goal to ensure that Challenger curriculum and all preparatory and supplementary programs and activities emphasize the science and engineering practices and cross-cutting concepts of the NGSS.

After School & Out of School

During out of school time, the Kentucky Science Center plans to offer after-school programs mirroring its successful *Afterschool Enrichment Program* previously held at both select JCPS and at 7 area Boys & Girls Clubs, including the Shawnee Club. The Kentucky Science Center will work actively to secure sponsors to underwrite the after-school programs offered to organizations such as the Boys & Girls Club and projects a total of 400 children served during the first year of operation.

Weekends will see Challenger-based Birthday Parties during which the Science Center will offer a 45-minute Challenger-based mini-mission or "Family Flight", and a space-exploration-related activity. Since the Science Center sees as many as 8 birthday parties each weekend at its downtown facility, we anticipate at least 1 birthday party each weekend at the Challenger Center during the first year. Another weekend program for the Challenger Center will be Boy and Girl Scout Programs. These day-long Saturday programs will occur several times throughout the year and we anticipate about 180 scouts will enroll in the programs. The Science Center's flourishing Facility Rental operation will expand to include corporate 'team-building' half and full day missions developed and marketed to area businesses and organizations. We anticipate about 6 such corporate missions during the first year.

The Shawnee Challenger Center will serve as an off-campus site for the Kentucky Science Center's thriving *Schools Out Science Camp* summer camp program. Currently the Science Center sees over 1,300 children for 15 weeks each summer at its downtown facility and over 400 enroll at satellite camp locations designed and operated by the Science Center in Scott, Fayette, Oldham, Warren and Daviess Counties. The Science Center projects that its Challenger Center *Summer Camp* will see a minimum enrollment of 60 children in three camps aimed at children ages 8 through 13 during the first year.

Staffing Plan

Kentucky Science Center agrees to comply with Section II, Item 3 of the Challenger Center for Space Science Education Agreement in regards to mission staffing requirements. A full time Flight Director will be recruited following the standards outlined in the agreement between same and JCPS. The Flight Director will hold primary responsibility for facility, technological and programmatic operation of the

Challenger Center working closely with and reporting to JCPS as necessary to receive technical and operational assistance via the Challenger Center for Space Science Education.

Since Challenger missions depend upon a highly trained team of educators, the Kentucky Science Center will make ready several of its part time master educators to serve as mission Flight Assistants. It is expected that they, along with the Flight Director, will be trained by the current Flight Director at Shawnee Challenger (Will Vandermeer) and if possible, will be in attendance during any missions JCPS is obligated to complete. The Flight Director and up to two Flight Assistants will facilitate each mission. Since the Shawnee Challenger is some miles from the Science Center's downtown facility, having up to three trained staff available at all times during missions will ensure that programs and services are delivered timely and effectively. The Kentucky Science Center will cover all employees hired for and/or performing job duties at the Challenger Center with the appropriate worker's compensation insurance.

Curriculum Alignment & Data Tracking

The Kentucky Science Center and the Flight Director will have final word on all programmatic products and services offered by the Academy @ Shawnee Challenger Center and approved by the Challenger Center for Space Science Education. The Director will make recommendations based on customer feedback, audience demands and evaluation data as to the need to create, enhance or alter existing missions and programs and if or when it becomes necessary to purchase the remaining Challenger mission, "Encounter Earth". Additionally the Flight Director will oversee the program booking/reservation set up and implementation process working closely with Science Center reservationists and will be responsible for recording all flight data and group information for each booking. They will report this information to Senior Management at Kentucky Science Center and the Reservations Team. Mission data will be reported out to JCPS quarterly or as requested.

Marketing

Increasing the number of missions served per year from its current (approximately 30) to 150 and maximizing reach to supplementary student, family and corporate audiences will depend upon an active and widespread advertising campaign. The Kentucky Science Center will produce and distribute collateral pieces, social media and other promotional packages and create a presence on its existing website. Collateral includes designating a separate section of the annual *Educators Guide*, producing a unique rack card/brochure as well as aggressive use of social media and email releases through the Science Center's *Club Ed* teacher/educator email portal and other contact lists. The Science Center requests that JCPS make available all promotional material they have as well as include a link and contact information on the appropriate JCPS web pages related to the Challenger Center. The Kentucky Science Center will use the specified logos and verbiage approved by the Challenger Center for Space Science Education and will seek prior approval from same before using any additional promotional products developed for marketing purposes.

Anticipated scope of responsibility for Jefferson County Public Schools

Included in the narrative above are several instances in which the Kentucky Science Center will require information, materials and services from Jefferson County Public Schools in order to operate the Challenger Center effectively as well as meet the requirements outlined in the Agreement between JCPS and the Challenger Center for Space Science Education. Specifically, the Kentucky Science Center will require JCPS to:

- Acquire and hold the annual License issued by the Challenger Center for Space Science Education for each year JCPS is in contract with the Kentucky Science Center to operate the Academy @ Shawnee Challenger Center.
- Amend or assign to its Agreement language that authorizes the Kentucky Science Center to operate the Challenger Center of behalf of JCPS.
- Turn over all Challenger Center mission simulation materials/curriculum including training and supplemental information pertinent to presenting the missions.
- Turn over all marketing and promotional materials including logos and designs; create contact information and web links on existing materials re-directing customers to the Kentucky Science Center.
- Use its district mail system “pony mail” to distribute Challenger Center information to district schools.
- Maintain general liability insurance on the facility and grounds as appropriate and as required by the Agreement with Challenger Center for Space Science Education.
- Cover all overhead costs associated with general maintenance and repair of general facility equipment, utilities, furniture and fixtures, and exterior grounds.
- Maintain the dedicated telephone and data lines that are tied directly to the National Challenger Center for the purposes of their having access to the Simulator’s computer /software to providing technical support and make modifications, alterations or upgrades necessary to the operation of the missions.
- Grant unfettered access to the Academy @ Shawnee Challenger Center starting on August 1, 2015 through July 30, 2016 with shared access to the parking at or adjacent to the facility.
- Designate a JCPS curriculum specialist(s) working with the Kentucky Science Center to bring the Challenger curriculum in line with District requirements.
- Designate a JCPS point of contact for all issues relating to the Academy @ Shawnee Challenger Center.