

REQUEST FOR PROPOSAL



4D Theater Design, Installation & Training
(Revised 7/25/2016)

The Michigan Science Center
5020 John R Street
Detroit, MI 48202

July 25, 2016

To Whom It May Concern:

Your vendor has been selected to receive and respond to the enclosed Request for Proposal (RFP) to provide 4D theater design, installation and training for the Michigan Science Center. In order to be considered, we must receive your proposal submission no later than **Friday, August 26, 2016**.

There will be a pre-proposal conference on **Tuesday, August 16, 2016** to review RFP requirements and tour the auditorium areas, and service areas of the Center. While attendance at the conference is not required, those vendors that wish to attend should submit a letter of intent to do so. The letter of intent should indicate the number of participants expected to attend on the vendor's behalf. The letter of intent should be submitted via email to the attention of Mona Bain at ramonab@apparatussolutionsinc.com by **Friday, August 12, 2016**.

We look forward to receipt of your proposal. If you have any questions, please submit them via e-mail by **Friday, August 19, 2016** to:

Mona Bain (on behalf of the Michigan Science Center)
Apparatus Solutions
ramonab@apparatussolutionsinc.com

Sincerely,



Mona Bain
Office Manager
Apparatus Solutions

Enclosures

Proposal Requirements

Your vendor is invited to submit a proposal for 4D theater design, installation and training for the Michigan Science Center. This request anticipates the receipt of proposals for these services and the ultimate selection of one vendor (herein referred to as "Vendor") by the Michigan Science Center. Proposals will be evaluated, in part, based on the fee schedule proposed as well as other criteria, i.e. industry experience, quality of personnel and other tangible factors. The Michigan Science Center reserves the right to negotiate any and all fees and terms upon selection of a vendor.

In addition to the background information that follows, please find enclosed the Toyota Engineering Theater (TET) Safety Instructions, Reference Materials, and press release announcing the plans for development for your review.

Please submit one (1) original and two (2) copies of your proposal, addressed to the office specified below by **Friday, August 26, 2016**, with the subject matter of the RFP and the name and address of the company clearly identified on the packaging.

Proposals sent via email, fax, or to any other address will not be considered.

Proposals shall be sent to:

Ms. Mona Bain
Office Manager
Apparatus Solutions
600 Renaissance Center, Suite 1780
Detroit, MI 48243

I BACKGROUND

A. About the Michigan Science Center

Mission

The mission of the Michigan Science Center (“MiSci”) is to inspire curious minds of all ages to discover, explore and appreciate science, technology, engineering and math in a creative, dynamic learning environment.

Vision

We aspire to become a premier institution for informal science, technology, engineering, and math (STEM) learning experiences in the state. We will achieve this by:

- Using cutting edge technology to facilitate scientific learning and discovery.
- Using principles of engineering, medicine, and other fields to connect to real world experiences and careers.
- Utilizing unique, engaging exhibit, stage, theater, and educational offerings promoting areas and principles of science.
- The effort of our exceptional staff.

B. UBIT Statement

The Michigan Science Center's revenue-generating activities support the Michigan Science Center mission and are consistent with the Michigan Science Center's culture, governance, and status as a tax-exempt organization.

C. About the 4D Theater Improvement Project

The Michigan Science Center seeks to enhance the visitor experience and generate additional revenue by upgrading an existing 2D motion-seat special-effects theater into a state-of-the art 3D/4D static-seat special effects theater.

Upgrades will include all major systems and the auditorium environment, and will allow the space to be used for daily ticketed 3D/4D features (produced both by Michigan Science Center and from vendor’s existing library of films), and for traditional multimedia theater events, such as classes and presentations.

All front- and back-of-house equipment will be replaced or refurbished to like-new condition, and will allow for the latest stable and proven multimedia 3D/4D video, audio, and effects. Included in the project cost will be five (5) years of on-site preventive/ predictive maintenance by vendor’s factory-trained technicians.

Current equipment is described below for informational purposes. The project does not envision or require matching or equivalent equipment, so long as the quality, durability, and overall show operation and experience represent best-in-class 3D/4D experience technology.

Current Equipment:

Video

Three ASUS PC display computers running Watchout, provide WXGA video to three Sanyo PLV-WF20 video projectors which shoot onto an 8'6"H x 39'8"W Da-Lite screen. EasyBlend software is used for Projector alignment.

Audio

Audio is hosted on the Watchout network (three ASUS Display PCs), and handled via Soundman Server software, run through an M-Audio Pro Fire 2626 interface to two Crown CTs 8200, two Crown CDi 4000, and two Crown CDi 1000 amplifiers. Speakers: two JBL 3622N mains, eight JBL 8340A surrounds, and two PAS EB-1 and four PAS RS-1 ceilings.

Control

Medialon Manager is the main automation software, which runs from an ASUS PC and controls Watchout, LightJockey, Soundman Server, and ShowFlow softwares.

Lighting

Theater Lighting is comprised of eleven 575W Source 4 Jr ellipsoidal lights, six Elation Opti-Par ETL cans, four Colorado LED Wash lights, two 575W Chauvet Q-Spot moving-yolk lights, two Martin Atomic 3000 strobe lights, ten MR-16 step lights, and twenty-seven PAR38 house light fixtures, all controlled via LightJockey software.

Benches

Forty-eight moving X4D benches from MediaMation (28 4-seaters & 18 3-seaters) for a total of 166 moving seats. The X4D benches are based on Henan-Evergreen Juliet seats, and feature neck and facial air blasts, facial water blast, leg ticklers, three scents, and seat rumblers. The benches are pneumatic, controlled by MediaMation's patented MIDI-based software: ShowFlow. Air is provided via an Ingersoll-Rand SSR-HP40SE air compressor.

Console

The Theater Console is where the LightJockey and General Purpose PCs are located, as well as an A/V rack used for events which features a Xenyx 2442 FX mixer, Kramer VP-725DS switcher, a Panasonic DMP-BD55 Blu-Ray player, a Tascam CD-160 mkII CD player, and two Shure GLX-D4 microphone receivers.

The project envisions a newly upgraded 3D/4D theater experience, complete with:

- High-quality 3D projection (and associated 3D equipment such as reusable glasses, glasses washer, etc.)
- High-quality multi-channel hall audio system, and optionally also including in-seat enhanced audio effects.
- 4D seat effects including a minimum of face air puff/blast, face water spray, leg tickle, seat bump/rumble, back poke, minimum of 3 different easily-changeable (multiple-

show/same day) scents; and optionally also including neck air puff/blast, bottom poke, and other seat effects.

- Hall effects including at least wind, bubbles, snow, lightning, colored light effects, and optionally smoke, rain, and other effects.
- Video projection capable of dynamic real-time adaptation to multiple uses, such as 3D features, PC-in presentations (PowerPoint, etc.), SVGA, 4:3, 16:9, and 21:9 aspect ratios in true (millions) of colors. Replication of the existing longitudinal-format projection screen is not required.
- Comprehensive building-integrated show control, including digital storage of at least 6 different shows, appropriately connected to door actuators, life safety systems, and all theater systems.
- Dramatic thematic and visual upgrades to the auditorium / hall space, potentially including new flooring, wall coverings and thematic elements, and other improvements to the ambiance of the space.

II Scope of Work

- A. The Michigan Science Center is seeking a Vendor to design, install, maintain, and provide programming and training for a 4D theater (the "4D Theater") at the Michigan Science Center. The 4D Theater will be located in an existing 180 seat +/- auditorium in the Michigan Science Center, called the Toyota Engineering Theater. The selected Vendor will utilize the existing auditorium and back-of-house spaces for the project.
- B. For reference, the original design drawings of the space are available for vendor review. These drawings are provided for general reference only. Dimensions and layout of spaces are represented, but accuracy is not guaranteed. The successful vendor shall be responsible for the field verification of all critical existing conditions, dimensions, and equipment prior to finalizing design documents for the 4D Theater retrofit.
- C. The 4D Theater will be open to the public whenever the Center is open to the public. The Michigan Science Center seeks the ability to use the 4D Theater for special showings of 4D films or for other uses, such as for lectures and special events. Most of these other uses would be held before or after typical operating hours. Michigan Science Center anticipates the grand re-opening the 4D Theater to the public no later than April 30, 2017.
- D. The Michigan Science Center seeks a Vendor who can provide the following services:
1. Design, Construction & Installation. The vendor shall design, construct, install and test upgrades/improvements to the 4D Theater, which such services include, but are not limited to:
 - i. Review of any available architectural drawings provided by the Michigan Science Center for the auditorium and field-verified confirmation that the space is adequate

for full and satisfactory operation of the 4D Theater;

- ii. Study and remediation of any disruptive noise that may "bleed" from the operations of the 4D Theater to other areas of the Center;
 - iii. Supply of all equipment and supplies necessary to create and operate the 4D Theater (if any equipment and/or supplies are to be provided by the Michigan Science Center, vendors should so note in their proposals), including assessment of which equipment or infrastructure can be re-used effectively during the project, and;
 - iv. Design and construction of all improvements (all chattels and fixtures) to the auditorium required to install and operate the 4D Theater;
 - v. Performance of all installation services (including demolition of existing unwanted material and equipment, cleaning and preparation of the space, install, set-up, and testing) according to a schedule to be mutually approved by the parties. Installation work will be performed during normal hours that Michigan Science Center is open to the public. Alternatively, if it is determined by Michigan Science Center that installation work will disrupt other activities at Michigan Science Center or create an unacceptable level of noise that would interfere with ongoing activities at Michigan Science Center, Michigan Science Center may require that installation work be performed after normal hours.
2. Maintenance. Vendor shall maintain the 4D Theater in good working order for the duration of the agreement term (five years) and perform repairs and provide replacement parts as needed, and on an emergency basis. Vendor shall perform all necessary annual and semi-annual preventive maintenance, supply stocking and repairs to the 4D Theater structures and to all furniture, fixtures, equipment, machinery, effects devices, and associated back-of-house equipment used in or by the 4D Theater.
3. 4D Theater Programming. The Vendor will provide all 4D films for the 4D Theater, with a primary focus on science and engineering content targeted to both adults and families with young children.
- i. Michigan Science Center seeks a Vendor that can provide films with national brand recognition and a sufficient library of film offerings to allow for regular rotation of films.
 - ii. In addition, Vendor shall produce a brief (0:10 to 0:45 second) opener (pre-title-sequence opener) featuring the Michigan Science Center.

4D film shown at the theater ("The Film"). Ideally, The Film will be produced by the Vendor in HD at its sole cost, and will be identified as a joint Michigan Science Center/Vendor production. It is envisioned that production of The Film will be completed no later than twelve months following opening of the 4D Theater. The script, treatment, rough cut, and fine cut of The Film will be subject to the advance, written approval of Michigan Science Center. Additional details regarding The Film will be subject to negotiation and addressed in the agreement between Michigan Science Center and the selected theater provider.

4. Training. The Vendor will provide training for Michigan Science Center and MiSci staff in the areas of guest interaction, system operations, and routine maintenance. Training will be provided on an ongoing basis for the duration of the agreement term.
 - i. Vendor shall train the Center's staff in basic daily, weekly, and monthly operation and maintenance.
 - ii. Training shall include classroom and practical, hands-on portions.
 - iii. Vendor will provide comprehensive customized, pre-written training curriculum and materials to the Center.
5. Marketing and Promotional Materials. The Vendor will provide marketing and promotional materials for the 4D Theater. All signs and other marketing and promotional materials, in any media, shall be designed by the Vendor in consultation with Michigan Science Center, and subject to Michigan Science Center's prior, written approval.
6. Educational Materials. The Vendor will provide educational print materials related to the films shown in the 4D Theater that target elementary and middle school audiences (students and teachers).
7. Accessibility. The Michigan Science Center is committed to providing full and dignified access for people with disabilities to all programs, structures, and sites in its care. The 4D Theater must meet the highest standards for physical and programmatic accessibility, including captioning. The Michigan Science Center follows the Americans with Disabilities Act Accessibility Guidelines (AOAAG) or the Uniform Federal Accessibility Standards (UFAS), whichever are more stringent. Reference should be made to the latest version of the ADA Standards for Accessible Design. Michigan Science Center will require captioning in the 4D Theater. Vendor should include in its proposal how captioning will be accomplished.
8. Approvals. All aspects of the design, construction and installation of the 4D Theater, including but not limited to location, size, materials used, finishes, and visible signs and graphics, shall be subject to prior written approval of the Michigan Science Center and shall comply with *all* applicable federal, state, and local codes, regulations, guidelines and standards.

State, local, and utility requirements vary depending on the location of the project. It is the responsibility of the Vendor, Vendor's designer or the architect-engineer to research and comply with all applicable guidelines, including the State of Michigan Carnival and Amusement Safety Act. Life safety, universal accessibility, and emergency egress from the 4D Theater and the building are primary concerns. Final construction documents (drawings and specifications) must be signed and sealed by a registered, professional architect-engineer, if required by applicable code, and shall be delivered to the Michigan Science Center for permanent record in hardcopy, AutoCAD, and PDF formats. Similarly, as-built drawings of the final, constructed conditions shall also be delivered to the Michigan Science Center in the same formats.

9. Michigan Science Center Responsibilities. The Michigan Science Center will provide or perform the following:
- i. *4D Theater Operation.* Operation of the 4D Theater in accordance with the operating guidelines provided by the selected theater provider.
 - ii. *Ticketing.* Ticketing services for the 4D Theater and the necessary equipment to operate same. Tickets to the 4D Theater shall be sold by MiSci through its existing ticketing systems and equipment.
 - iii. *Utilities.* The Michigan Science Center will provide electricity, heat, air conditioning, and water to the 4D Theater based on existing capacities in the auditorium. Generally, if a service provider requires any additional utilities or services beyond those provided, the 4D Theater Provider should include in its proposal any additional utilities or services that will be required for the project and propose how those additional costs will be addressed.

III Proposal Instructions and Conditions

A. General Instructions and Conditions

1. The purpose of this RFP is to provide interested parties with sufficient information to enable them to prepare and submit proposals for consideration by the Michigan Science Center. This RFP is being issued to companies interested in designing, constructing, installing, and turning over operation of a 4D Theater as described in these documents. Your proposal should only address the services described herein.
2. Proposals prepared in response to this RFP shall comply with the instructions and proposal requirements contained in this document. Proposals that deviate from these instructions and requirements may be disqualified at the Michigan Science Center's discretion.
3. The Michigan Science Center reserves the right to enter into negotiations with any or all companies at its discretion and based upon the best interests of the Michigan Science Center.
4. The Michigan Science Center is not responsible for paying any proposal preparation costs or any other costs associated with a response to this request. This RFP does not obligate the Michigan Science Center to enter into any agreement, nor shall it be construed as authorization for companies to proceed with any work directly or indirectly related hereto.
5. All information and materials submitted in response to this RFP for consideration by the Michigan Science Center will become the Michigan Science Center's property and will be returned only at the Michigan Science Center's discretion.

6. Submission Process:

- i. *Pre-Proposal Conference & Letter of Intent to Attend.* There will be a pre-proposal conference on **Tuesday, August 16, 2016** to review RFP requirements and tour the auditorium areas, and service areas of the Center. While attendance at the pre-proposal conference is not required, those vendors that wish to attend should submit a letter of intent to do so. The letter of intent should be submitted via email by **Friday, August 12, 2016** to the attention of Mona Bain at ramonab@apparatussolutionsinc.com. The letter of intent should indicate the number of participants expecting to attend on the vendor's behalf.
- ii. *Questions.* All substantive and administrative questions about this RFP should be submitted in writing by email to the attention of Mona Bain at ramonab@apparatussolutionsinc.com. Questions must be submitted by **Friday, August 19, 2016** in order to ensure a response.
- iii. *Proposal Due Date.* Please submit one (1) original and two (2) copies of your proposal, addressed to the office specified below by **Friday, August 26, 2016**, with the subject matter of the RFP and the name and address of the company clearly identified on the packaging.

Proposals sent via email, fax or to any other address will not be considered.

Proposals shall be sent to:

**Ms. Mona Bain
Office Manager
Apparatus Solutions
600 Renaissance Center, Suite 1780
Detroit, MI 48243**

7. Michigan Science Center reserves the unconditional right to cancel this RFP or to terminate negotiations at any time without cost or liability of Michigan Science Center. Participation in this RFP or any resulting contract constitutes an affirmative waiver by participants of any claim to proposal preparation costs. Interested vendors should note that this is not a solicitation for contract with any unit of government and is therefore not governed by public procurement procedures.
8. The Michigan Science Center reserves the right to reject any and all proposals received as a result of this request. Noncompliance with the instructions and conditions of this RFP may result in disqualification of your proposal. The Michigan Science Center may refuse to consider any proposal for any reason, at any time.
9. At Michigan Science Center's option, any or all of the companies that are selected as finalists may be invited to meet with Michigan Science Center representatives in person or over the telephone to discuss their proposals and answer questions. Travel and per diem for any such meeting will be the responsibility of each company.

10. Authorized Negotiators. Companies are hereby placed on notice that the only persons authorized to conduct discussions and/or make commitments on behalf of the Michigan Science Center regarding this RFP and all matters incident hereto are the Michigan Science Chief Operating Officer and his designated representatives.

B. Proposal Requirements. All proposals must include the following:

1. Project Approach. A narrative describing your company's approach to the project, consistent with the Scope of Work in Section II above. This shall include a proposed timeline that anticipates launch in spring 2017, and a detailed training plan. As part of your narrative, please indicate which films you would propose as part of your proposal, and whether they are part of your existing library or whether licenses would need to be secured in order to show those films. In addition:

- i. Please propose the optimal number of seats for the 4D Theater. If the optimal number of seats proposed is less than the current number of seats, please propose alternate seating arrangements to address suitable seating for non-4D events that will accommodate the maximum number of people.
- ii. Your proposal must contemplate and accommodate other uses for the 4D Theater while not in operation for the 4D experience (e.g., lectures, special events).
- iii. You should propose thematic and operational modifications to the seating layout, stage, flooring, walls, doors, ceiling, and projection / service areas.
- iv. You may propose the use of space in other areas of the Center for equipment to support the operations of the 4D Theater. Use of other areas must be proposed by the provider and may need to be compatible with other Michigan Science Center operations or uses (HVAC, electrical, water, fire safety, and IT).
- v. Your proposal must address both physical and program accessibility, including how theater captioning will be addressed.
- vi. Please explain your company's ability to incorporate sustainable practices in all aspects of the 4D Theater, including but not limited to construction methods, materials, and operations. LED lighting, energy-saving air compression, and similar technologies are encouraged.

2. Qualifications and Experience. A narrative describing your company's overall qualifications and experience. This shall including the following:

- i. Substantial experience and capabilities in the design, construction, installation, programming and maintenance of public theaters, including but not limited to 3D and 4D presentations. Your company must be able to demonstrate substantial, superior performance in these fields. Experience in the design, construction, installation, programming and maintenance of theaters within non-profit organizations is

preferred, but not required.

- ii. Experience in on-site 4D Theater operations and maintenance. Please provide a copy of your 4D Theater operating guidelines and 4D theater maintenance procedures.
 - iii. Access to a broad volume of high-quality (national brand recognition) high definition film content with a focus science and engineering themes.
 - iv. Ability to assist with the production of high quality custom films.
 - v. Experience training staff in 4D theater maintenance, systems operations, operational safety, and guest interaction.
 - vi. A description of what in-house capabilities your company has to support this type of tum key project versus what will be outsourced, i.e. creative/design, construction, installation , marketing, etc. For any capabilities that would be outsourced, please identify the vendors proposed for outsourcing.
3. Company Profile. A company profile, including the number of years your company has been in business, bios of key personnel, location(s) of company office(s), and your company's most recent corporate financial statement.
4. Business, Financial and Legal Terms. Your proposed business and financial terms for the project , including but not limited to the following:
- i. Key Contract Requirements. An explanation of any exceptions or deviations your company will require in order to make a proposal on this project. Exceptions will not automatically cause a proposal to be deemed unacceptable. However, exceptions not providing obvious benefit to the Michigan Science Center may result in rejection of a proposal as unacceptable.
 - ii. Licensing. MiSci requires the successful Vendor to be properly licensed for all of the activities they propose to undertake, and to provide proof of liability insurance and bonding.
 - iii. Certification. A statement from your company certifying that there is no material litigation, either pending or threatened, or any contractual or business relationship involving your company or any of its principals, shareholders, partners, officers, or employees which would prevent or limit your company from providing any services described in this RFP, or would hinder your company's ability to achieve fully the stated objectives and an affirmative statement that your company is responsible and able to conduct business in Detroit and throughout the United States. **To be provided as a signed, certified document with your proposal.**
5. Marketing and Educational Materials. A creative portfolio of samples of your company's current or previous 4D Theater marketing materials, and film-related educational print materials.

6. References. A minimum of five (5) references from clients who currently or within the past five (5) years have had a 4D theater designed , constructed, installed and/or operated by your company, with contact name and title, address, phone number, and a brief description of theater and programming. References provided should demonstrate performance relative to the subject matter of this RFP.
7. Representations and Certifications of Vendor. As in section 4.iii above, **sign and return with your proposal.**

IV Evaluation Criteria

Subject to the discretion of the Michigan Science Center, any company may be selected who is deemed responsible, whose proposal conforms to the requirements in all of the RFP documents, and is judged, based on the evaluation criteria below, to represent the best value to the Michigan Science Center. The Michigan Science Center will not select a company whose proposal is determined to be unacceptable to the Michigan Science Center. The Michigan Science Center reserves the right to ask any or all potential vendors to revise or update their proposal, at any time.

Evaluation factors will include (but not be limited to):

1. Qualifications and experience, including ability of Vendor to invest in the project;
2. Quality and creativity of proposed project approach, including breadth , quality, and relevance of film library;
3. Past Performance of your company (e.g., compliance with contract requirements, quality of products/services provided, timeliness of performance, cost control, business relations). The Michigan Science Center may use past performance information obtained from other than the references identified by the vendor; and
4. Price, including prices for equipment, services, training, etc.
5. Timeline for project launch.

The Michigan Science Center reserves the right in all cases to be the sole judge determining whether a company meets the evaluation criteria.

V Deadlines

- *Letter of Intent to attend Pre-Proposal Conference* - Letter of intent to attend the pre-proposal conference is due by **Friday, August 12, 2016**. Please submit via email to the attention of Mona Bain at ramonab@apparatussolutionsinc.com. Please remember to indicate the number of participants.
- *Pre-Proposal Conference* - The pre-proposal conference will be held at the Michigan Science Center on **Tuesday, August 16, 2016**.
- *Questions* - All questions regarding the RFP must be received by Mona Bain at ramonab@apparatussolutionsinc.com by **Friday, August 19, 2016**.
- *Proposals* - All proposals must be received by **Friday, August 26, 2016**.

- END -