

Request for Proposals Boston Children's Museum Construction Zone Digital Interactive Components

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1. INTRODUCTION

Boston Children's Museum (BCM) invites firms to participate in a selection process to identify and engage one or more partners in completing the development and production of two digital interactives for a 3,750 square foot exhibit broadly focused on construction¹.

Concurrent with this RFP, BCM is issuing a separate RFP to engage a Design-Build firm to complete the full exhibit design and implementation (including fabrication and installation) of the overall exhibit within which these digital interactives will be situated. Firms may choose to bid on one or both of these digital components, and/or the Design-Build RFP. BCM may choose to award separate contracts for any/all of these projects. If separate firms are awarded contracts for the digital interactives and the full exhibit design-build, the Design-Build firm will be responsible for integrating the digital interactives into the exhibit.

The selection process for this RFP will be based both on written responses, as well as on an interview (in person or via videoconference) with short-listed firms.

Proposals are due to Joel Reider, BCM's Director of Exhibit Design, by December 20, 2024 at 12:00 PM EST, as detailed in <u>Section 7: Selection Schedule</u>.

¹ Throughout this project, when using the term "construction," we are broadly referencing the full spectrum of planning, architecture, engineering, design, and building that support the creation of structures and spaces.

2. BACKGROUND AND PROJECT OVERVIEW

About Boston Children's Museum

Boston Children's Museum is the second oldest and one of the most influential children's museums in the world. Since its founding in 1913, BCM has been engaging children and families in joyful discovery experiences that instill an appreciation of our world, develop foundational skills, and spark a lifelong love of learning. The Museum's exhibits and programs emphasize hands-on engagement and learning through experience, employing exploration and play as tools to spark the inherent creativity, curiosity, and imagination of children. BCM's primary audience is children ages 0-10 and the adults in their lives, and we welcomed 420,000 visitors in fiscal year 2024.

About the New Exhibit and Work to Date

Originally installed in 2003, our current *Construction Zone* exhibit is one of the most popular spaces in the Museum. The exhibit redesign project (new name tbd) will result in the creation of a new 3,750 square foot permanent exhibit² that invites visitors to engage in the process of construction, which we define broadly to include everything from planning and architecture through to trades.

As part of our standard process for commencing an exhibit design project, an initial literature review was conducted (with focuses on gender, race, and demographics in construction, as well as topics such as STEM, building, construction, and spatial reasoning for young children). In addition, BCM conducted an evaluation of our current *Construction Zone* exhibit, and solicited input from a variety of construction professionals and community groups to help inform our redesign plans. Through this process, BCM identified our target audience for the new exhibit as children ages 4-8 and their caregivers, with a specific emphasis on girls and children of color as a key challenge and priority for the new space.

During concept development, the team created a "Dream/Design/Build" framework for the exhibit redesign that is intended to highlight the full process of construction and the many fields (from city planning to architecture to design to the trades) comprising construction. While the building aspect of construction (using your hands, tools, and machines to actually make structures) is innately engaging to many children, the inclusion of the dreaming and designing is intended to increase engagement among children (and caregivers) who might be more drawn to the artistic or social-emotional elements of construction, such as drawing, imagining possibilities, and understanding the needs of community members. Work to date has resulted in the creation of the following main message for the exhibit:

We have the power and ability to dream up, design, and build things that make our world a better place. What we build affects people, animals, plants, and everything else around us.

BCM has completed the Design Development phase of our exhibit design process, and thus in addition to creating our conceptual framework, significant component development, space planning, and identification of our design language has already occurred—all informed by our front-end research and early prototyping.

² Permanent exhibits at BCM remain in the Museum for 10+ years.

Design-Build firms interested in bidding on this project will be provided BCM's Design Development package. To indicate intent to apply and gain access to these materials, firms should email Joel Reider, BCM's Director of Exhibit Design, as detailed in <u>Section 7: Selection Schedule</u>.

About the proposed digital interactives

Because one of BCM's core beliefs is that hands-on experience with real objects is key to the exploration and play-based learning experiences we offer within the Museum, we tend to use digital interactives only when it is the best tool available to meet an experience goal. Specifically, we value the opportunity to use digital technologies to help visitors create content of their own, allowing them to share their ideas and voices.

BCM has identified the following two components within the new exhibit as ones we see benefiting from digital technologies:

Dream City: Dream City is an eye-catching centerpoint for the exhibit, highlighting that
imagination and creativity are at the heart of all design and construction. As visitors approach,
they will see a digital cityscape filled with other visitors' drawings of their ideas and dreams,
topped by a whimsical 3-dimensional sculpture—an artist's creation (to be commissioned by
BCM) intended to serve as inspiration and call out that creative and playful ideas are important.

Using digital tools, each visitor will be invited to imagine what they might like to add to the cityscape, draw their dream structure, and then upload it to the shared display—maybe a building, park, spaceship dock, or something no one's ever seen before. Visitors will see their own creation appear alongside others', creating a collective new city and a celebration of ideas. Visitors will also be able to watch animations of things happening in and around their structure and the whole city—a rainstorm or rainbow, people playing, or maybe even King Kong!

Magic Painter: A partially-built structure is one of the largest interactive components within the exhibit. Many of the walls within this structure are unfinished (some exposed to the framing and others with wallboard), but one back wall is ready for painting. Visitors will use rollers and brushes that are similar to a real interior painter's (and tethered to the activity) to pretend to paint—and repaint—the wall. Visitors will see the color of the wall change as they move their rollers and brushes over the surface.

Magic Painter is currently envisioned as a digital interactive, but may ultimately benefit from lower tech solutions, depending on cost and ability to achieve the desired visitor experience. No matter how the magic happens, we want visitors to experience what it's like to paint a wall, using tools similar to those of the trade.

Design and Production Parameters and Criteria

Process and BCM Project Team: Many members of the BCM staff have participated in our exhibit process to date, and we are looking for a firm who is interested in joining our team. We

anticipate working in a collaborative relationship that draws on both BCM's and the firm's expertise, as well as that of consultants and advisors to the project. BCM has a track record of creating engaging, creative, joyful experiences that are meaningful for children and families, and we are looking for a partner to help us achieve that with this new exhibit. BCM's core team for this exhibit include our on-staff Director of Exhibit Design, Senior Director of Exhibits and Research, as well as contracted Content Developer and Graphic Designer. Additional team members who also contribute to this project include members of BCM's visitor experience, education, collections, and facilities teams.

BCM has a Learning Framework and Equity Tool, which are critical documents that will guide the creation of the new exhibit. BCM has been incorporating the principles represented in both of these documents to guide development of the exhibit to this point. Our Learning Framework defines how BCM thinks about exploration, play, and learning, and outlines the defining features of our experiences that we feel are essential to supporting children and families and help make our exhibits accessible, meaningful, and fun. BCM's Equity Tool is a process and series of questions for centering equity across all types of experience development work in the Museum. Summaries of both our Learning Framework and Equity Tool are available upon request.

Safety, Useability, and Durability: BCM is known for our high quality hands-on exhibits, and our exhibits need to be designed and built to last for 10+ years of hard and enthusiastic play. We are looking for a firm who shares our commitment to choosing design solutions that support safety, accessibility, and usability, as well as durability and ease of maintenance. BCM's audience is diverse in many ways, and design solutions must be intuitive for intended users.

Design Language, Aesthetics, and Materials: BCM aims for the new exhibit to be inviting and inspirational for our visitors. We are looking for a firm who can help us ignite our visitors' curiosity, imagination, and creativity. Inspiring and inventive design solutions with aesthetics that integrate well with the overall exhibit design and graphic design approach are high priorities.

3. SCOPE OF SERVICES

The scope of services for this project is the complete design and production of the digital interactives (in two phases), in collaboration with the BCM project team and BCM's selected Design-Build firm. Firms can submit proposals for one or both of the digital interactive components as suits their expertise and capacity.

- Phase 1: Design development of the interactives from their current state through the final phase of design. Final Design must be completed and approved by BCM prior to the start of Phase 2.
- Phase 2: Implementation final back-end production and coordination with the Design-Build firm to ensure complete and successful integration of the design into the physical components of the finished exhibit. Implementation will be completed according to a schedule determined by

BCM and the selected firm(s); BCM may require a pause between Phases 1 and 2, depending on fundraising.³

SERVICES INCLUDE:

Project Management:

The selected firm(s) will have a strong track record in managing complex design and implementation projects of similar scope at museums that serve young children and families. BCM will rely on the firm for excellent project management, including communication and coordination with BCM; updating and keeping to budget and schedule; and compliance with ADA and other best practices.

BCM will require a designated point of contact at the firm; mutually agreed upon communication protocols and change order procedures; close communication between the firm and BCM's project manager and selected Design-Build firm; a minimum of weekly meetings; hands-on opportunities for BCM team to monitor progress; and timely invoices and expense submissions. Critically, BCM will require opportunities for thorough review and final approvals for all stages of the project; the firm should propose a review and approvals process to be mutually agreed upon and followed by both parties.

Execution of the project will require cooperation with additional individuals and teams, which will be coordinated through BCM's project manager. Teams and individuals will include BCM's Graphic Designer, Content Developer, and Design-Build firm, as well as BCM staff members. The digital interactive firm may include partners and subcontractors, as necessary, and will be the main point of contact for those vendors.

Phase 1: Design

Building on BCM's existing conceptual framework, component ideas and details, floorplan, and design direction, the firm will further develop/design the components in true partnership with BCM. BCM will require thorough reviews and final approvals at all stages (as previously described). The firm will:

Design Development:

- 1. Lead further component development and design of the interactives, integrating BCM's existing work and in collaboration with BCM project team;
- 2. Create proof of concept prototypes, and test with BCM team and visitors;

Final Design:

- Create all necessary plans, including user interfaces and design treatments (following BCM's design direction and possibly integrating assets created by BCM's Graphic Designer⁴);
- 4. Design, build, and test working prototypes for evaluation and review with the BCM team and with children and families;

³ At the time of issuing this RFP, BCM has secured 46% of our total project budget, which covers all of the Design phase and a part of Implementation. BCM will move ahead with Implementation once we have raised approximately two-thirds of the total budget. BCM is confident in current prospects and is committed to seeing this project through to completion.

⁴ It is essential that the graphic approach for the digital interactives aligns well with the graphic approach for the overall exhibit, and BCM may choose to use our Graphic Designer's work as part of the digital interactives. We understand that these decisions will impact budgets, and ask for proposals that include both options (see <u>Section 5: Submission Requirements</u>, item 8a for details).

- 5. Collaborate with BCM's selected Design-Build firm on plans for integration of the components into the exhibit;
- 6. Complete a final design package with all necessary details for production and installation, including budget and timeline, that aligns with Design-Build firm's timeline.

Phase 2: Implementation

Using the final approved design created in Phase 1, the firm will produce and install the interactives, and provide documentation and training that will allow BCM to operate and maintain the exhibit into the future. BCM will require thorough reviews and final approvals at all stages (as previously described). The firm will:

- 1. Produce final software and graphic interfaces, with opportunities for BCM team to test functionality;
- 2. Specify hardware and provide all necessary details for installation and completion to BCM's selected Design-Build firm;
- 3. Review and approve Design-Build firm's shop drawings to ensure successful integration and functionality;
- 4. Install programs onto recommended hardware and ensure functionality;
- 5. Produce and deliver all final documentation including, but not limited to, maintenance manual;
- 6. Train BCM staff on the operation and maintenance of the exhibit to ensure project success and longevity;
- 7. Provide one year of troubleshooting and technical support.

Project Management:

Across all phases of the project, the firm will:

- 1. Prepare and keep updated design, production, and installation schedules, with critical milestones and tasks identified;
- 2. Prepare a full project budget for design, production, and implementation, and monitor project cost estimates to ensure compliance with the project budget;
- 3. Coordinate through BCM with all third-party vendors contributing to the project, and, at times directly with BCM's selected Design-Build firm to plan for successful integration of the work.

WHAT BCM WILL PROVIDE:

- BCM's Director of Exhibit Design will serve as project manager throughout this project. The selected firm(s) will also work directly with other members of BCM's core team (previously defined), other BCM staff, and BCM's third-party vendors, as coordinated by the project manager. Through BCM's project manager, BCM will provide reviews, comments, and final approvals for all stages in a timely manner, as agreed upon with the selected firm.
- BCM will provide our work to date, including relevant front-end research and conceptual framework (target audience, main message, goals, and objectives), content templates for each component, prototyping memos for selected components, and design direction. BCM will retain an active role in generating ideas and participating in the continued development of all exhibit components and final design solutions.

- 3. BCM will work with the selected firm(s) to find the best ways to prototype components both at the firm's location and with children and families (either at BCM or a venue local to the firm), and will support testing in-person.
- 4. BCM will write all exhibit label copy, including any copy that is necessary within the digital interactive software. We may choose to have our Graphic Designer lead the design of graphics within the software (tbd in collaboration with the selected digital interactive firm; see <u>Section 5:</u> <u>Submission Requirements</u>, item 8a for details).

4. PROJECT BUDGET AND TIMELINE

The total budget for the new exhibit is \$2.1 million, which is inclusive of all aspects of the project—including those outside the scope of this RFP. We anticipate that approximately 40-50% of our budget will support the exhibit design, fabrication, and installation of the entire exhibit project (including all third-party vendors and approximately 30 separate components). Inclusion of one or both of the interactive components in this RFP is ultimately dependent on the costs fitting within the overall project budget. We are looking for a digital interactive firm who can support and guide our plan to create a high quality experience while keeping within budget, and understand that BCM and the selected firm will need to make thoughtful decisions together to do so.

As noted previously, to date, BCM has raised 46% of the total project budget. This includes all of the funding necessary for completion of Phase 1: Design, and part of the funding for the full completion of the project (Phase 2: Implementation). BCM may require a pause after Design is complete for continued fundraising. BCM will begin Phase 2: Implementation with the selected firm once we have reached approximately two-thirds of our total fundraising goal.

Our target date for completion of Phase 1: Design is May 2025. Assuming no pause for fundraising is needed and we can move straight into Phase 2: Implementation, our target for exhibit opening is December 2025. BCM asks bidders to outline a project schedule that achieves these target dates—or, if our desired dates are not feasible, to outline realistic schedules and completion dates for each of the two phases with explanations for additional time needed.

5. SUBMISSION REQUIREMENTS

Responses should be submitted electronically as a PDF of the proposal package no later than 12:00 PM EST on December 20, 2024 (see Selection Schedule for details). Address all materials to:

Joel Reider Director of Exhibit Design Reider@BostonChildrensMuseum.org

Responses should be no more than 10 pages and should include:

- 1. Complete contact information;
- 2. Statement of interest;
- 3. Suggested project approach for each phase, including:

- a. Projected schedule/timeline for each phase; with notes on how the timeline might be impacted by a pause between Phases 1 and 2 for fundraising;
- b. Specific proposed details for project management;
- c. Specific proposed details about collaborating with the BCM project team;
- 4. Proposed main point of contact and key project personnel who will be directly involved, both at the different phases and across the project's duration, including any vendors and subcontractors, if known at this stage; include brief bios with relevant qualifications and descriptions of prior projects;
- 5. Assessment of the firm's overall ability to devote necessary time and attention on this project, with specifics given for the main point of contact's and key personnel's workloads in addition to this project (e.g., number of other parallel projects, etc.);
- 6. A summary of no more than three recent digital projects with images and description of how each example relates to this project;
- 7. Three recent references citing previous project experience (name, phone, email);
- Itemized project cost for each phase, including estimates for the full design and production, all fees, etc; with any notes on how the project budget might be impacted by a pause between Phases 1 and 2 for fundraising; considerations to note:
 - a. BCM is interested in budget options for if the firm creates all graphic assets within the software, or if BCM's Graphic Designer creates them and the firm integrates those assets;
 - b. The Digital Interactive firm is not responsible for procurement of hardware and integration of the digital interactives into the exhibit;
- 9. Understanding that this would be a separate contract, BCM would also want to understand approximate costs for ongoing maintenance contracts with your firm.
- 10. Suggested payment terms and conditions.

6. CRITERIA FOR SELECTION

BCM's evaluation of proposals will be based on written proposals and interviews indicating:

- 1. Alignment of the firm's portfolio, team, and proposal with BCM's approach to and goals for our audience and exhibit;
- Demonstrated experience with and capacity for all phases of the project (design through implementation), as well as overall project management (including communication and management of budget and schedule);
- 3. Comprehensive explanation of proposed costs, schedule, and services offered;
- 4. Demonstrated understanding of and respect for where BCM currently is in the process, and indication that the firm is willing and eager to work with BCM in a collaborative partnership;
- 5. Interviews with finalists and reference checks.

7. SELECTION SCHEDULE

RFP circulated	December 5, 2024
Submit request for BCM's DD package and/or questions to BCM*	December 10, 2024
Response to questions circulated*	December 12, 2024

All proposals due at Boston Children's Museum Notification of finalists Conduct finalist interviews Notification of project awarded December 20, 2024 January 2, 2025 January 6-10 2025 January 17, 2024

* Submit requests for BCM's DD package and/or questions via email to: Joel Reider, Director of Exhibit Design (<u>Reider@BostonChildrensMuseum.org</u>). Responses to all questions will be circulated to all firms who submit questions or request the DD package.

Work on Phase 1: Final Design to begin immediately following awarding of contract in mid January 2025.

8. GENERAL INFORMATION

Confidentiality

All respondents' submissions will be treated as proprietary information and will be used solely for the purposes herein. Should a respondent require its submission be returned, BCM will do so at the respondent's request and at the respondent's expense.

Copyright Ownership

The selected firm's services will be engaged and shall be rendered on a work-for-hire basis in favor of BCM for copyright purposes. In the event such services are not deemed to be on a "work made for hire" basis, then the vendor shall assign to BCM the vendor's entire rights, title and interest, including copyright, in and to anything created or developed by the vendor for BCM under any agreement concluded by vendor and BCM, including (by way of example and not of limitation) all original files or work files created by or in the possession or control of the selected vendor, and all patents, copyrights, trade secrets and other proprietary rights in the work performed by the vendor for BCM. The vendor shall cause any subcontractor or partner to do the same.

Federal Funding

Some of the funding for this project may come from Federal sources. The selected firm(s) may be required to comply with certain Federal procurement policies, and certify in writing that it has not been suspended or disbarred from doing business with any federal agency.