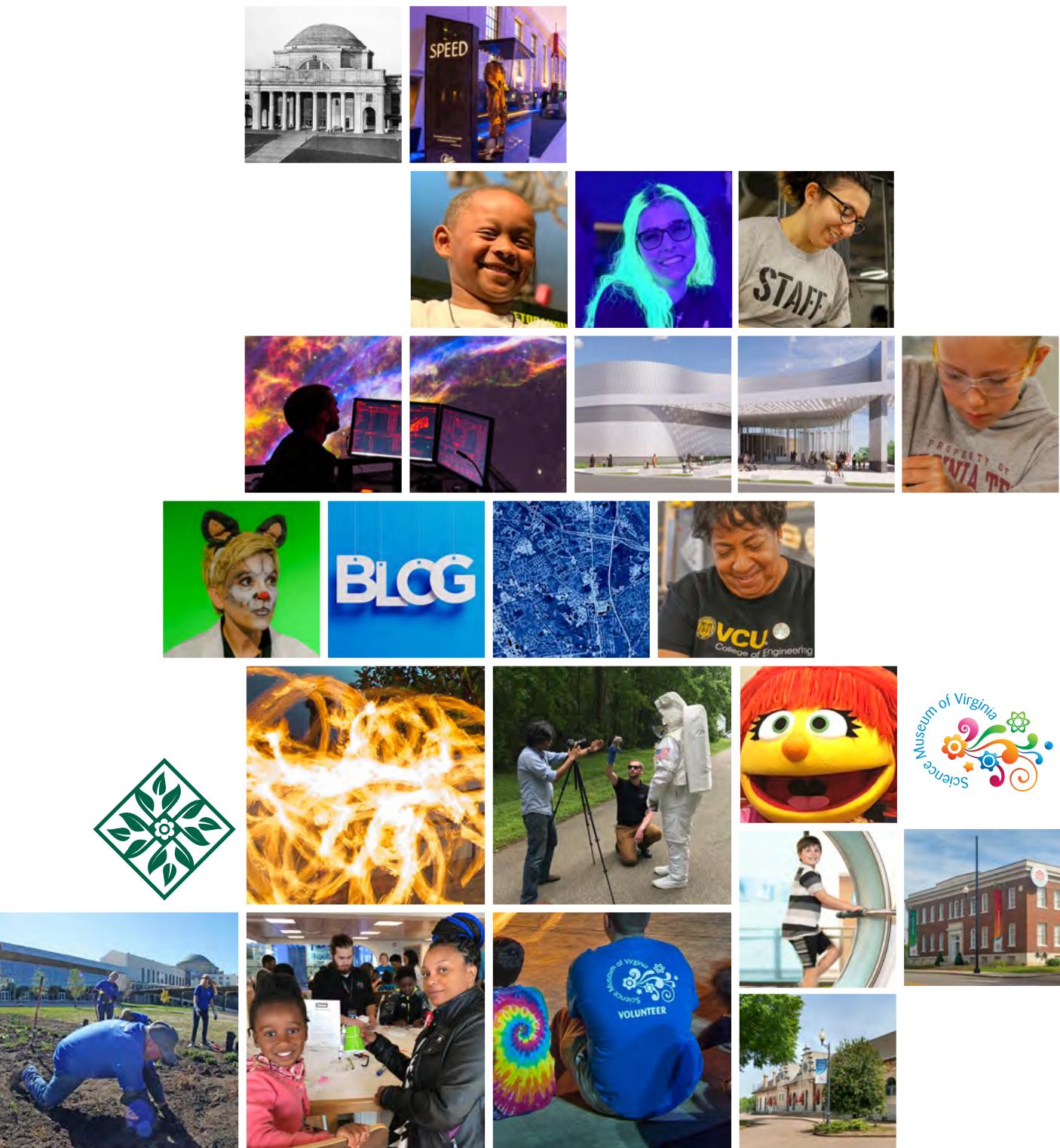


SCIENCE MUSEUM OF VIRGINIA **STRATEGIC PLAN**
2021 - 2026





Since 1977, the Science Museum of Virginia has served as a community gathering place, a leader in informal learning practices, and a resource for science, technology, engineering, and mathematics education for the Commonwealth of Virginia.

Through experiential exhibits, unique artifacts, interactive technologies, innovative workshops, dynamic films, impressive live animals, hands-on makerspaces, interesting lab demos, and quirky original content, we inspire hundreds of thousands of guests each year, broadening their perspective with compelling, relatable, and fun connections to the world of STEM.

While the Science Museum is headquartered in Richmond, it operates a recently reimaged satellite in Danville and is developing a new satellite in Northern Virginia that is scheduled to open in 2024. These three distinct geographical locations represent three very different audiences in Virginia. But the Science Museum is more than the physical elements housed within our walls or the content we create.

Our institutional philosophy is action oriented. It's a verb, an approach, a feeling. It acknowledges that the Science Museum team is an integral part of the experience and needs continued development to ensure collective understanding of our values, mission, and vision. It drives our relentless search for new ways to connect with our guests to take them on a journey, one that begins with curiosity in the world around us and continues when a discovery is made about something—big or small—formerly unknown. That discovery then leads to transformation that can literally change the world. So the journey can begin again...





Among the three of us, we have served the Science Museum of Virginia—as Science Museum or Foundation Board members—for a combined 25 years. We were all initially drawn to being involved with the Science Museum because we believe in its mission: to inspire all Virginians to enrich their lives through science. We see the ever growing influence STEM has on our daily lives. As our involvement in and understanding of the Science Museum has grown over the years, we've seen its mission exercised in countless ways that have sparked curiosity and opened the door to discovery.

With a myriad of educational offerings for students and families, international touring exhibitions, and community events that are a part of the fabric of the community, the Science Museum touches so many in different ways. We have seen first-hand how the Science Museum has touched the life of a dad engineering a modification to his child's wheelchair, a 15-year-old prototyping a product to start his own business, and a young family providing a safe experience for its child who is on the autism spectrum.

Nothing is more gratifying as Board members than to hear and see positive things in the community about the organization that you serve. Over the last decade, the Science Museum has been transformed into a guest-first, community-focused institution driven to change the way Virginians see the world. We are eager to support the Science Museum over the next decade as it stretches to reach even more of the community in impactful ways.



Denise H. Walters, Ph.D.

Chair, Science Museum of Virginia Board of Trustees
Stability Team Leader, GSK Consumer Healthcare
Chair, Nottoway Indian Tribe of Virginia Tribal Council



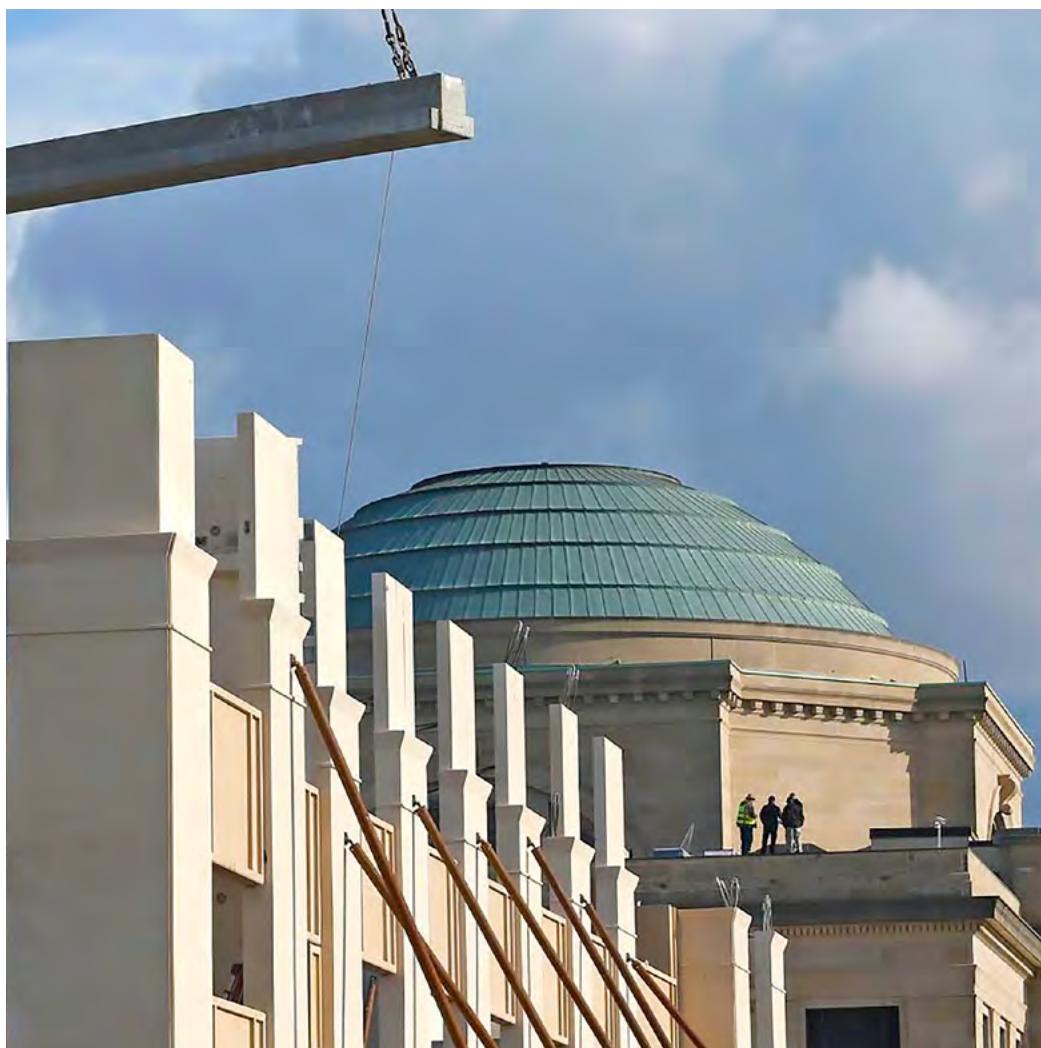
Glenn Davidson

Immediate Past Chair, Science Museum of Virginia Board of Trustees
Human Capital Executive, Deloitte Consulting, LLP



Robert A. Feeser

President, Science Museum of Virginia Foundation Board of Directors
President, Riverwind Advisors, LLC



From the Chief Wonder Officer



The Science Museum went through a comprehensive strategic planning process during the latter half of 2008 and most of 2009, driven largely by the arrival of its third director (me) and the impact of the global financial crisis.

Working with museum experts to incorporate best practices from the field, the Science Museum embarked on a plan to improve its reach and efficiency and hone its focus to excel in areas that it could truly make a difference.

After adopting the new strategic plan in October 2009, the Science Museum worked with local branding experts to develop a comprehensive brand architecture to support our new position as a communications organization, or as we say, the marketing agency for science. An exhibits master plan and fundraising feasibility study came next.

Fast forward to 2017, and approximately \$35 million of new exhibition galleries and building improvements led to attendance increases from 290,000 to 520,000. Earned revenues also increased dramatically and the Science Museum turned its focus to expanding the Science Within Reach program.

As the 2009 plan comes to a close, we are completing a 400-space parking deck, 6-acre public green space, and an \$80 million satellite in Northern Virginia.

This strategic plan looks to build directly on the success of the prior one. As the above major projects are completed in the 2024 time frame, where does the Science Museum go next? What should be our priorities? How do we continue to grow as an institution and positively impact the lives of **all** Virginians?

When embarking on this plan, we relied on the expertise of our Trustee and Foundation Boards and our experienced staff, while also listening to our partners, the business community, and some of our peer institutions. Our Great Organizations team interviewed nearly 40 organizational leaders to learn about their institutional goals and how several priority areas—including pandemic recovery and diversity, equity, accessibility, and inclusion (DEAI) efforts—were incorporated into their strategic focus. Our Building/Site team developed values for how to maintain and improve our facilities and grounds and set priorities for when those spaces should be addressed. The Education team studied our partnerships and programs and refined a strategic focus for how the Science Museum can best fulfill its mission. And our Northern Virginia Science Center team continued the planning and development of this \$80 million project, highlighting each milestone to be completed prior to opening in 2024.

Because the Science Museum's core values are so fundamental to our mission, the plan is organized to coincide with those values. What we learned from this process has provided a framework for the Science Museum to continue to grow in a strategic way that will best fulfill our mission and vision.

A handwritten signature in black ink, appearing to read "Rich C. S." or a similar variation.



Mission

To inspire **all** Virginians to enrich their lives through science.

Vision

Compelling science inspires, and we are the marketing agency for science.

Values

Experience. We are focused on creating a fun, relevant, interactive experience for our guests and we use a variety of tools to accomplish this including art, current events, popular culture, theater, technology, nature, and artifacts.

Informal Learning. We embrace informal learning through real-world applications of STEM principles. We emphasize the scientific process and involve mentors to facilitate problem solving and showcase STEM careers.

Personal Engagement. We emphasize personal interaction with our guests and seek to connect them to the world of STEM.

Science Within Reach. We strive to connect to audiences that we are not currently reaching, especially those that are underrepresented in STEM fields.

Community Gathering. We strive to leverage our facilities to be a catalyst for our community to gather and engage.

Sustainability. We support the concept that “our planet’s health and our individual wellness are one.”

Partners. We are opportunistic and leverage strategic partnerships to broaden our reach and impact.



Key Themes

The Science Museum is a community organization. As such, plans for its future must be driven by the community's needs. Community participation—from staff and Board members to partner organizations and industry leaders—played a vital role in the development of this plan. Thank you to the many people and organizations who committed their time, talents, and insights to help shape our future of the Science Museum of Virginia.

Community Feedback

The Great Organizations team interviewed nearly 40 organizational leaders representing community nonprofit organizations, Science Museum partners, industry leaders, and more. While each offered different perspectives, several key themes surfaced that helped drive the focus of this plan and the direction for the Science Museum moving forward.

- In the science museum field, there remains concern about the business models that drive us. Many do not feel that they are sustainable from an operating or a capital standpoint. The Science Museum is largely insulated from these concerns because of our significant level of support from the state of Virginia.
- Relevancy and a strong connection to your community are keys to success.
- The pandemic has changed all organizations. It has allowed us a fresh start to focus on what is truly impactful to our mission.
- The pandemic opened up the potential to utilize technology and telecommuting in a more extensive fashion. However, there are concerns about too much reliance on this having a negative affect on organizational cultures.
- The pandemic has spurred many organizations to undertake efforts to help youth overcome disparities that were further exacerbated by the pandemic. Each group has their own approach and each wants something different from the Science Museum. It will be imperative that the Science Museum defines how it can best impact its community and maintains that direction or it runs the risk of spreading resources thin and not making an impact.
- A focus on DEAI is here to stay and is especially important to younger members of the workforce. Major employers are awarding charitable gifts to nonprofits who are prioritizing DEAI values and practices.
- A strong workplace culture is more important than ever and needs to be a constant, overt focus for leadership.
- We need to examine our guest interaction and determine the ideal amount of digital content we offer guests.
- Many organizations are working to help bridge the STEM gap for underrepresented youth, but there is a disconnect when these youth don't see themselves in STEM to even seek out STEM programs. The Science Museum could help fill that gap.

Goal 1: Museum Experience



© SEAN DEVITT PHOTOGRAPHY

Energize the Science Museum's indoor and outdoor physical spaces through building and site improvements, new exhibit galleries, facility updates, and investment in satellite campuses with the Danville Science Center and the Northern Virginia Science Center.

With the adoption of this plan, the Science Museum has formalized commitments which will guide decisions made regarding investment in and changes to its campus in the future. These commitments are:



Recognizing the importance of green space in urban settings and the dearth of green space in the vicinity. The Science Museum is committed to preserving as much public open space as possible, including the 15-acre parcel currently leased to the City of Richmond Economic Development Authority (EDA) for the Washington Football Team training camp.



Preserving the historic architectural integrity of Broad Street Station and ensuring it remains on the National Register of Historic Places.



Prioritizing interior space for the overall guest experience over staff/administrative needs, where possible.

Creating mission-based educational experiences from all site and building improvements, using environmentally sustainable practices where applicable.

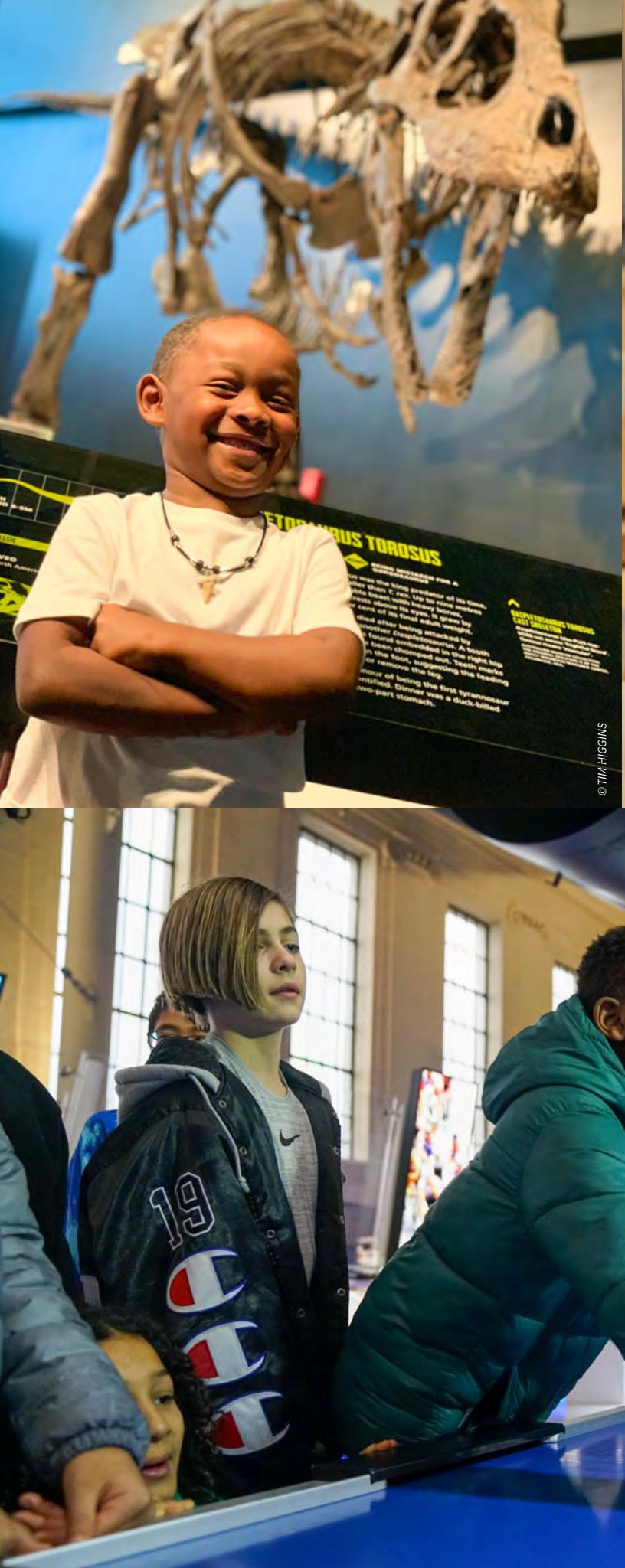


Exhibit Gallery Upgrades

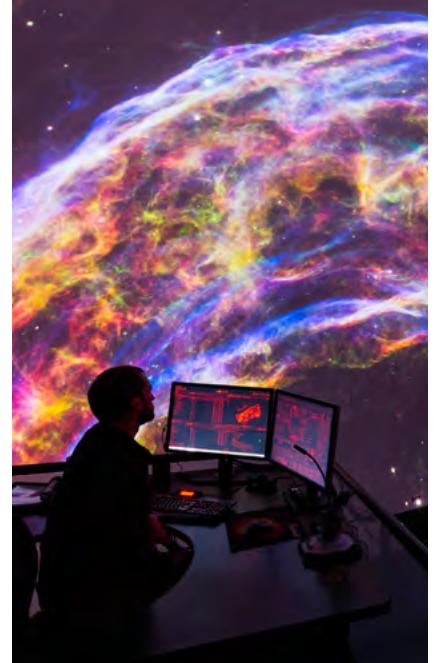
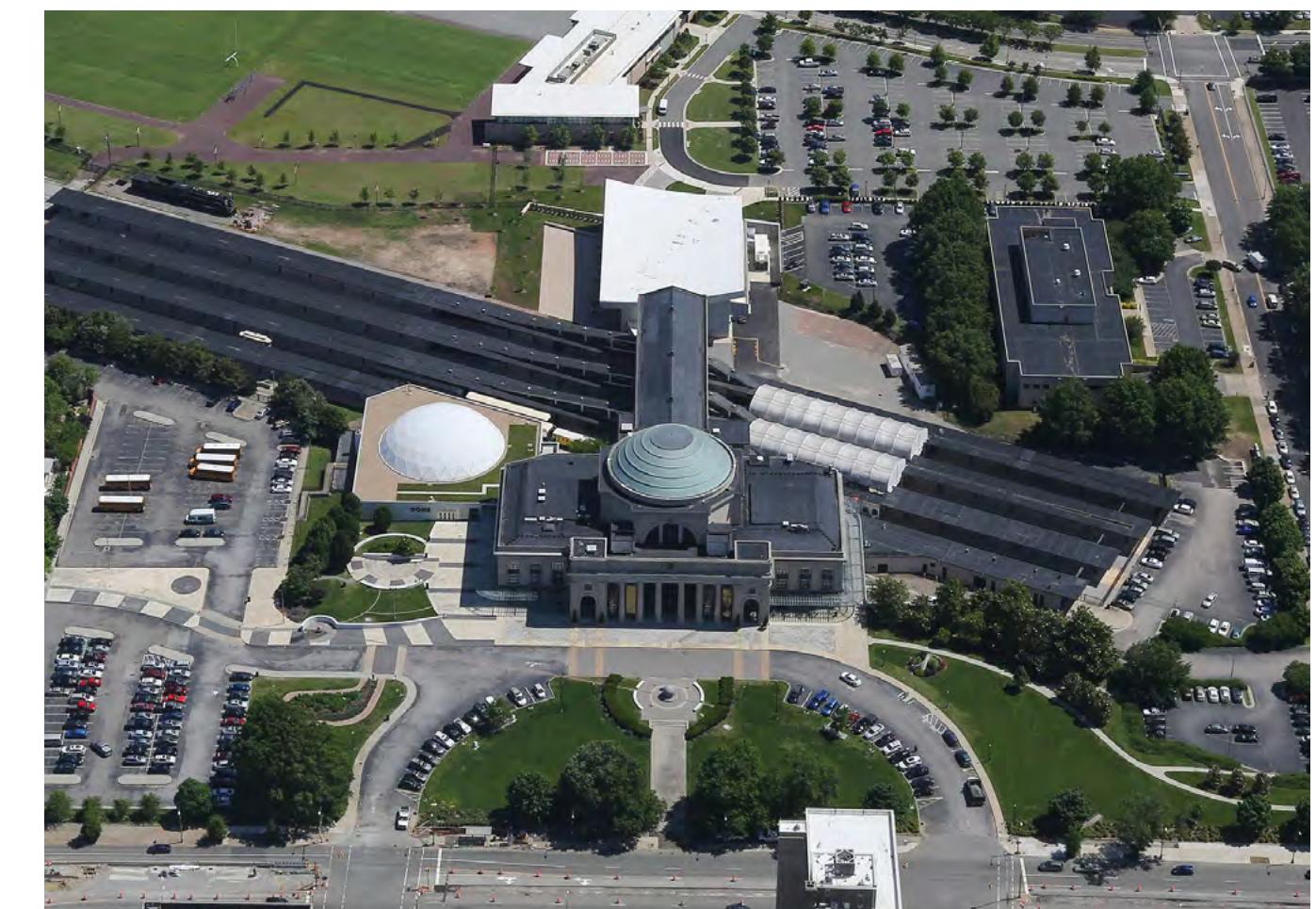
To ensure the Science Museum's exhibits remain relevant and engaging for guests, the Science Museum will refresh several key experiences including an upgrade of The Dome projection system (completed between 2022 - 2024), development of a new exhibition to replace *Boost* (completed between 2024 - 2027), and initiation of a plan to develop a new exhibition to replace *Speed* (completed between 2027 - 2030). These major gallery refreshments will require fundraising to fully implement.

Museum Facility Improvements

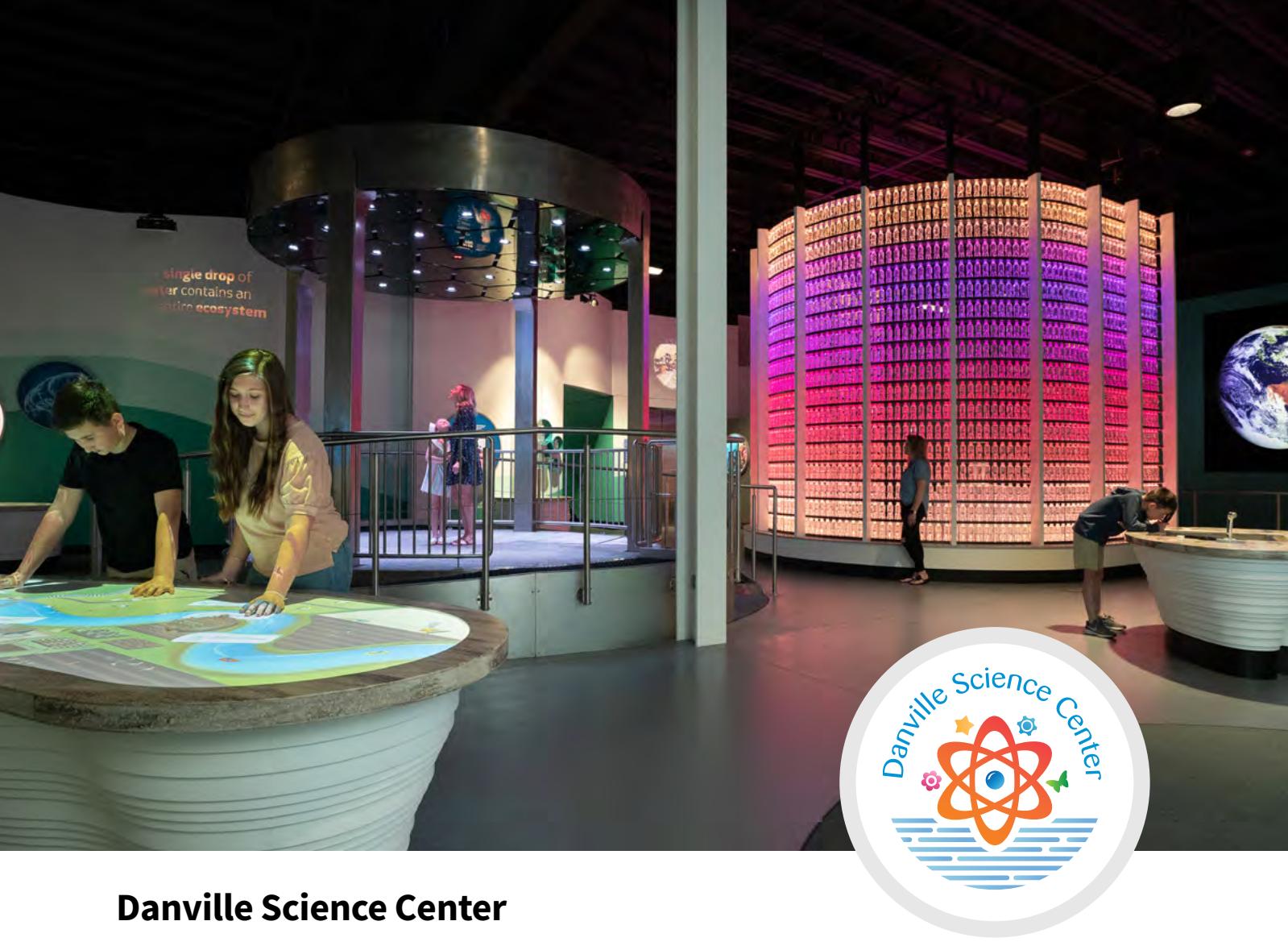
The Science Museum will complete several critical infrastructure improvements, prioritizing interior spaces that enhance the guest experience over administrative needs wherever possible, while preserving the architectural integrity of Broad Street Station and ensuring it remains on the National Register of Historic Places. These improvements include IT infrastructure to maximize digital content and adapt to technology developments in the coming decades and building improvements to maintain and enhance building safety and efficiency.

Museum Grounds

Several outdoor spaces have been identified and prioritized for redevelopment in concert with the core values adopted by the Building/Site team. These include, but are not limited to, the Terminal lot, Thalhimer Pavilion, the Protopath and the Worker's Compensation building site.



© VIRGINIA TOURISM CORPORATION



Danville Science Center

The reimagined Danville Science Center opened to the community in November 2020. The opening marked the culmination of the master plan adopted in 2017, which included a \$9 million interior refurbishment that provided three new permanent exhibit galleries—*Crescent Crossing*, *Water and Go*—and a permanent makerspace, the J.T. - Minnie Maude Charitable Trust Creativity Lab.

With the physical improvements complete at the Science Center, focus over the next few years will be on enhancing programmatic offerings, partnership expansion, and content development to complement the new exhibit galleries and provide guests with a reimaged experience, both inside the Science Center and beyond.



© SEAN DEWITT PHOTOGRAPHY



Northern Virginia Science Center

The Northern Virginia Science Center is being developed through a public-private partnership including the Northern Virginia Science Center Foundation (a Northern Virginia based nonprofit), the Science Museum of Virginia, and Loudoun County.

The project has made significant progress over the last two years. The Science Center's name and brand were developed, exhibit and architectural design began, and a lead private gift was secured, which—along with funding from the state and Loudoun County—helped solidify 90% of the \$80 million project cost.

With an anticipated groundbreaking in late 2022 and an anticipated opening in 2024, the Northern Virginia region will be home to a new world-class science center by the end of this plan's period of performance.

The Northern Virginia Science Center will help spark, develop, and grow an understanding and appreciation that science is everything and everything is science. Five exhibit galleries—*Flow*, *Helios*, *Habitat*, *Human*, and *Wonder*—will give guests a chance to create art and music using real-time internet data; construct an outpost on the moon; investigate Earth's habitats by land, air, and sea; harness the power of the human brain; and more.

Over the next few years, the Science Museum will continue to work with project partners to shepherd the project through critical milestones, from building and operations to marketing and education, that will culminate with the opening of the Science Center.





Goal 2: Community Gathering and Partnerships

Invest resources to protect and build community gathering places, and cultivate partnerships that will inform Science Museum content to ensure its programming reflects, respects, and addresses the needs of the communities it serves.

The Green

The Science Museum has completed the design on Phase I of a project that will reclaim two acres of asphalt surface parking and reestablish the front acreage of historic Broad Street Station as a new 6-acre public green space. The project aligns with the city's Richmond 300 development plan, which prioritizes green infrastructure for Greater Scott's Addition, one of the fastest growing, mixed-use neighborhoods in the city with one of the lowest levels of urban tree cover.

Native and other beneficial trees and plants will play a central role in achieving The Green's design concept and its desired environmental and health benefits. A key feature, a block-long, tree-lined allée paralleling Broad Street, will improve the pedestrian experience while buffering traffic noise.

The Green is planned with passive recreation in mind. ADA-accessible walking paths and casual seating areas, shaded by over and understory trees, provide an opportunity for guests to exercise, reflect, relax, gather, and connect.

The Science Museum is also committed to preserving the 15-acre parcel behind Broad Street Station, which is currently leased to the Richmond EDA, to be used as public open space for organized programming and recreation.

Strategic Partnerships

Connections to professionals, educational institutions, community groups, and national initiatives are vital to the Science Museum's understanding, growth, and progress.

The Science Museum will develop and cultivate a broad array of stakeholders to provide insight and feedback on all aspects of our educational programming and content. This will include continued development of the Science Museum's Scientific Advisory Board, our relationship with the Virginia Commonwealth University School of Education, and work with the many Science Within Reach community partners. We will also investigate new state and national partnerships that will help the Science Museum grow sustainable, impactful changes in STEM literacy for all Virginians.





Goal 3: Community Sustainability

Connect citizens with science in meaningful ways, empowering them with information, skills, and resources that spur both individual and collective action that leads to positive change.

Community and Participatory Science

The Science Museum will continue to foster and grow its community science program as the nexus of support for community-centered, participatory scientific research throughout Virginia. We will identify funding opportunities to support current community science work (RVAir and heat island research), as well as opportunities to develop new projects that align with community- or Science Museum-identified gaps in data that could lead to better collective understanding. Further, the Science Museum will ensure data collected is shared in our programming and through community-led partnerships as a method of continuous inspiration. The Science Museum will leverage its community science work as a method for supporting a more scientifically engaged citizenry.

Green Space Utilization

As previously noted, the Science Museum has embarked on a project to create a new 6-acre public green space in front of Broad Street Station. In addition to key benefits of contributing more public green space to the area, this project represents a bold step in transforming the Science Museum's campus into a living informal learning opportunity.

The Green will offer a natural space for organized STEM programming and will create a demonstration site for sequestering carbon, managing stormwater, and addressing the effects of climate change with natural solutions in an urban setting. Additionally, it will provide opportunities for the Science Museum to leverage community partnerships and foster green workforce development.

The Science Museum will identify funding opportunities that overlap with The Green's design and community science. It will build collaboration with local university researchers to conduct onsite experiments and observations with community scientists and will incorporate data results into Science Museum programming.

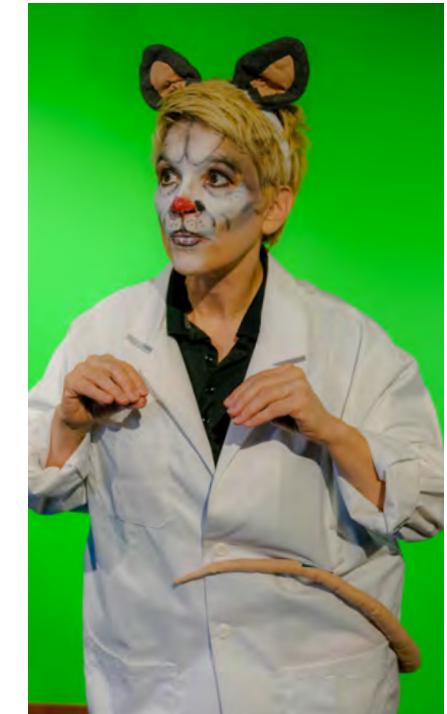


Goal 4: Informal Learning

Now, more than ever, it is vital that people actively engage with STEM in ways that are not only exciting, but also meaningful and relevant. The Science Museum will explore new (and revisit old) methods of successfully engaging audiences in STEM, highlighting real world applications shared over a variety of media and educational platforms. The Science Museum will play an integral part in helping unify efforts and increase collaboration across the commonwealth to meet the aspirational goals for growing STEM initiatives in Virginia.

Museum Content

The Science Museum will review all content—exhibits, educational programs, digital communications, etc.—to ensure offerings are not only relevant and on brand, but also embrace the “Museum as a verb” philosophy by delivering content that surprises, delights, and engages our audiences. Further, the Science Museum will develop content that provides breadth and depth on STEM-related topics and promotes diversity of representation in STEM across platforms. The Science Museum will also explore how technological advances could enhance production and distribution of content with a goal of stretching the boundaries of the Science Museum.



Virginia STEM

The Science Museum will continue to host/support the Virginia STEM Coordinator, who will assist in the management of the STEM Board for Virginia and its efforts to coordinate STEM programs statewide. The Virginia STEM Coordinator will work with community partners to pilot a regional STEM hub and assist in the development of a unified STEM education model designed to help teach practitioners about STEM and provide professional development for classroom and informal educators across the commonwealth.





Goal 5: Engagement

The Science Museum will continue to focus on DEAI in its continuous improvement efforts. From removing barriers to Science Museum programming to reinvigorating staff culture driven by our values, the organization will build on the foundational work of Science Within Reach and the Center for IDEAs (the internal staff committee focused on DEAI efforts) to further engage both external audiences and the staff.

Audiences and Experiences

As part of the ONE Virginia Plan for Inclusive Excellence, the Science Museum will develop an annual DEAI work plan—with both internal and external goals—that affirms that DEAI is a fundamental part of all Science Museum decisions and actions. External efforts will focus on building on the success of programs developed under Science Within Reach to rebuild/refresh existing offerings and explore new audiences to serve. Internal efforts will focus on recruiting and retaining a diverse workforce to increase access to STEM-related positions and expand perspectives contributing to the Science Museum experience.

Prioritizing People

In order to fully engage our guests, we realize we must have a happy, engaged staff. The Science Museum will continue to take steps to elevate its internal culture, ensuring that it is healthy, sustainable, and consistent with our core values. All efforts—from a revamped onboarding process to ongoing training—will be centered around affirmation and acceptance of the Science Museum's mission-driven focus of delivering an inspiring guest experience.



Recognition

Great Organization Interview Participants

Rob Alexander, Capital One
Brian Anderson, ChamberRVA
Jamala Arland, Genworth Financial
Sherri Armstrong, Community Foundation for a Greater Richmond
Jack Berry, Richmond Region Tourism
Bob Blue, Dominion Energy
Barbara Boyan, Virginia Commonwealth University School of Engineering
Alexandra Byrum, University of Richmond Bonner Center for Civic Engagement
Mark Constantine, Richmond Memorial Health Foundation
Andrew Daire, Virginia Commonwealth University School of Education
Jill Diniz, Great Minds
Robert Dortch, Robins Foundation
Elena Edwards, Allianz Partners, USA
Rob Estes, Estes Express
Harold Fitrer, Communities in Schools Richmond
Pam Goodner, Great Minds
Teddy Gottwald, New Market
Melinda Hancock, VCU Health
Steve Holdych, CapTech Ventures
Chevy Humphrey, Museum of Science & Industry, Chicago
Jason Kamras, Richmond Public Schools
Eric Martin, CarMax
Aaron McClung, Wells Fargo
Jill McCormick, Cabell Foundation
Todd McFarlane, Boys & Girls Clubs of Metro Richmond
Stephen Moret, Virginia Economic Development Partnership
Lynne Munson, Great Minds
Angela Patton, Girls for a Change
Tim Ritchie, Museum of Science, Boston
Abby Rogers, YMCA of Greater Richmond
Steven Snyder, Fleet Science Center
Immanuel Sutherland, Altria
Jennifer Wakefield, Greater Richmond Partnership
Mary Allen Waller, Markel
John Wick, Wells Fargo
Joe Wisne, Roto

STEM Partners*

4-VA STEM Networking Grant Representatives 2018
CodeVA
National Council of Teachers of Mathematics
Pennsylvania State-wide STEM Ecosystem
STEMx National State STEM Alliance
Teaching Institute for Excellence in STEM (TIES) through STEM Ecosystems
Virginia Association of Science Teachers
Virginia Commonwealth University School of Education
Virginia Commonwealth University College of Engineering
Virginia Department of Education
Virginia STEM Education Advisory Board
Virginia STEM Education Commission

Community Partners*

Art 180
Autism Society of Central Virginia
Blue Sky Fund
Boy Scouts of America Heart of Virginia Council
Boys & Girls Clubs of Metro Richmond
Cameron K Gallagher Foundation
Capital Trees
Chesterfield County Library System
Chesterfield County Public Schools
Children's Museum of Richmond
City of Richmond, Office of Sustainability
Communities in Schools Richmond
Down Syndrome Association of Greater Richmond
EnRichmond TreeLab
Girl Scouts of the Commonwealth of Virginia
Girls for a Change
Greater Richmond Transportation Company
Groundwork RVA
Happily Natural Day/Duron Chavis
James River Park System
Library of Virginia
Mad Science
Maymont
NAMI, Virginia Chapter
NextUP
Partnership for the Future
Pathways to Science/Caminos a la Ciencia
Peter Paul Development Center
Richmond Health Department
Richmond Public Schools
Richmond Tree Stewards
RVAgreen 2050
Salvation Army, Boys and Girls Club
Side by Side
Southside ReLeaf
The Westmont
University of Richmond Bonner Center for Civic Engagement
University of Richmond Spatial Analysis Lab
Virginia Commonwealth University SustainLab
Virginia Community Voice
Virginia Department of Conservation and Recreation
Virginia Department of the Blind and Visually Impaired
Virginia Department of Environmental Quality
Virginia Hispanic Chamber of Commerce
Virginia State University 4-H Extension
Virginia Voice
Westminster Canterbury
YMCA of Greater Richmond

Science Museum of Virginia Board of Trustees

Glenn K. Davidson, Chair
Denise H. Walters, Ph.D., Vice Chair
David Mills, Secretary
John F. Benton
Rodney L. Berry, Ph.D.
David B. Botkins
JoAnne Carter
Elsa Q. Falls
Richard S. Groover, Ph.D.
Eucharia Jackson
Amy Laufer
Lauren Mathena
Patricia Nicoson
Cristina Domínguez Ramírez
Molly Joseph Ward

Science Museum of Virginia Foundation Board

Robert A. Feeser, President
Stephen T. Holdych, Immediate Past President
Tom Benedetti, Vice President
Elena Edwards, Vice President
Sky Massey, Vice President
Scott D. Stovall Esq., Vice President
Hank C. Coleman, Jr., Treasurer
Roby H. Hackney Esq., Secretary
Robert M. Alexander IV
Jamala Arland, FSA, MAAA, CFA
Rosann Bocciarelli, Esq.
James H. Caudill
David E. Cottrell
Anne Marie Elles
Robey W. Estes, Jr.
R. Alexander Kurland
Eric Martin
John M. O'Bannon III
Adam R. Thalhimer
Charles S. Valentine III
John D. Whitlock
John H. Wick IV

Staff Strategic Plan Contributors

Richard Conti, Chief Wonder Officer, Science Museum of Virginia
Charles English, Virginia STEM Coordinator
Adam Goebel, Executive Director, Danville Science Center
Judy Harris, Director of Advancement, Science Museum of Virginia Foundation
Jeremy Hoffman, Ph.D., David and Jane Cohn Scientist, Science Museum of Virginia
Courtney Moyer, Director of Communications and Curiosity, Science Museum of Virginia
Kinsey Peeler, Executive Director, Science Museum of Virginia Foundation
Timshel Purdum, Director of Playful Learning and Inquiry, Science Museum of Virginia
Kristin Sardeson, Human Resources Manager, Science Museum of Virginia
Brandon Smith, Director of Technology and Innovation, Science Museum of Virginia
Nene Spivy, Executive Director, Northern Virginia Science Center Foundation
Steve Teacher, Director of Facilities and Possibilities, Science Museum of Virginia
Elizabeth Voelkel, Deputy Director, Science Museum of Virginia

*Not exhaustive lists.

