

GATEWAY DECATHLON 2025 REQUEST FOR PROPOSALS

Issue Date: **May 2, 2023**

Due Date: **October 6, 2023**

This Request for Proposals (RFP) includes a main document and several attachments. Please review the entire RFP, including attachments, to prepare a comprehensive response to this solicitation. Teams accepted into the competition will receive a one-time \$100,000 award as seed money.

Gateway Decathlon is an international design-and-build competition open to all accredited colleges, universities, and other post-secondary educational institutions.

Questions about this RFP or the competition in general should be sent to **EventHQ@GatewayDecathlon.com**.



Preliminary rendering of the completed Gateway South district

Introduction

Gateway Decathlon is a new design-build competition and public exhibition event that challenges multidisciplinary university teams to demonstrate innovation in the design and construction of housing. The Gateway Decathlon will be held in late September / early October 2025 adjacent to the iconic Gateway Arch National Park on the Mississippi riverfront in St. Louis, Missouri.

Constructed from 142 prefabricated sections of curving stainless steel, each weighing between 5 and 70 tons, the 630-foot Gateway Arch was built to honor the city's historic role as the "Gateway to the West" during the 19th century and the individual pioneers who led America's westward expansion. Its unique and iconic form required innovative engineering and construction methods, and thus it remains a symbol of both geographic and architectural pioneering.

Today, a new generation of trailblazers is needed to explore the frontiers of design, engineering, construction, health and technology to meet the threats of climate change and the affordable housing crisis head-on. This RFP aims to accelerate the construction industry's progress by fostering development of, and exposure to, innovative and sustainable living solutions in a competitive environment. Join us in this collective effort to invent the future.

Gateway Decathlon is sponsored by Good Developments Group (GDG) and Vault Partners, the real estate firms co-developing the 100-acre Gateway South Design & Construction Innovation District in St. Louis. GDG brings a deep and diverse network of industry connections to the competition and offers a spectacular location to showcase the event. Richard King, founder of the U.S. Department of Energy Solar Decathlon, will serve as Competition Director for Gateway Decathlon.

Overview of Gateway South Innovation District in St. Louis

Gateway Decathlon is an important aspect of the Gateway South Design & Construction Innovation District currently under development in St. Louis, Missouri. Gateway South will be the first-ever geographic hub dedicated to construction industry advancement.

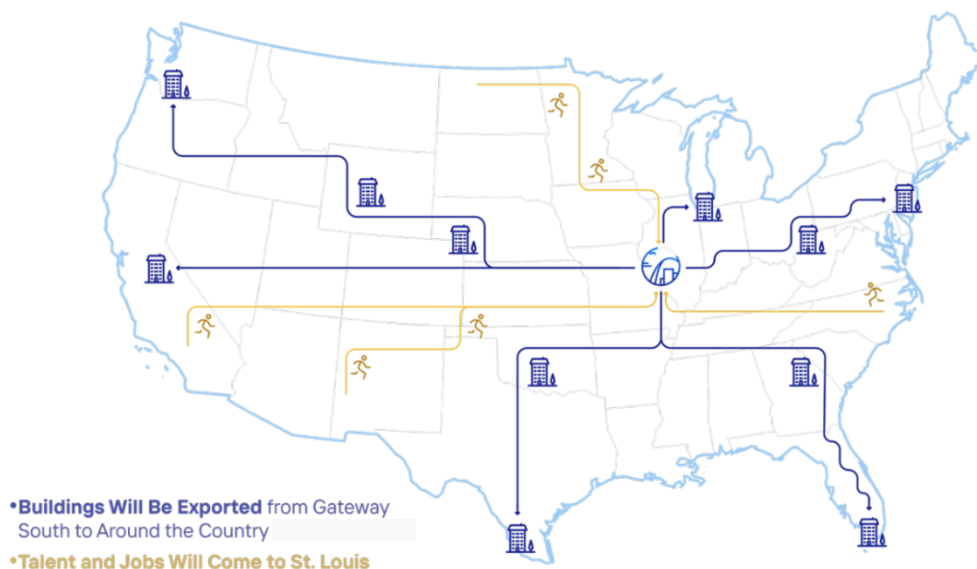
It will bring together suppliers, manufacturers and builders and have tailored facilities, logistics infrastructure, and programs that enable effective offsite construction and catalyze innovation more broadly within the district. Other sectors such as entertainment, tech, finance, and music have benefited from sector-specific density in Hollywood, Silicon Valley, Wall Street, and Nashville (respectively), the construction sector has never had a geographic hub.

For decades, construction has lagged other industries in efficiency gains. This has come to a head: labor shortages, rising material costs, and large-scale unmet demand for more, and better, sustainable housing necessitate change in systems of construction and greater adoption of modern technology.

Gateway South will be a catalytic development enabling:

- Collaboration between corporates, startups, fabricators, university researchers, nonprofits, students, and workforce
- Radical change and improvement to the built-environment supply chain
- Streamlined offsite manufacturing-style building production and distribution for efficient construction at sites around the country
- Workforce development opportunities focused on construction skills of the future
- Advancement and adoption of new materials and digital technologies

The Gateway South Innovation District project and the new Gateway Decathlon are landmark opportunities to research, innovate, build, and lead the global transformation of the design and construction industry.



Gateway Decathlon

The Gateway Decathlon competition is an exciting opportunity for multidisciplinary collegiate teams to showcase their skills in designing and building innovative, carbon-neutral, efficient, and market-ready housing units.

Gateway Decathlon is looking for passionate and goal-oriented teams motivated to contribute to the greater good. These teams will be challenged to design and build model housing units from scratch, demonstrating innovative applications of construction science and technology that can transform the industry. Each of the 16 teams will compete in ten distinct contests - from attractiveness to performance of their homes.

The Competition Village where all 16 housing units are assembled side-by-side creates a temporary design innovation community – increasing networking and cross-fertilization of ideas as well as interest and impact of the exhibition for the public. Participants also have exposure to cutting-edge technologies and practices as part of the community of construction innovators at Gateway South. The public exhibition of the competition homes will attract thousands of in-person visitors and online viewers, as well as press, providing teams significant exposure for their innovative designs and effective build-out.

Gateway Decathlon Evaluation

The Gateway Decathlon Organization and its selected expert juries will evaluate the prototype model housing units according to specific criteria associated with ten contests. Teams will earn points in each of these ten contests. The team with the highest aggregate score across the ten contests wins the competition. Detailed competition rules will be published by June 30, 2023.

The ten contests of Gateway Decathlon are listed below. This list is subject to change until the rules are published. Scoring and evaluation criteria for each contest will be described in the rules.

Design & Construction (*juried*)

1. **Design** – design aesthetics, passive and active design strategies, microclimates
2. **Construction & Assembly** – speed/efficiency, innovative delivery methods, circular construction, resiliency, longevity
3. **Materials & Supply Chain** – sustainable and mindful materials, supply chain, inventory management (GHG, energy, water waste, impact), maintenance
4. **Wellness & Adaptability** – well-being and daily living, entertaining, aging in place, accessibility, renovations (opportunities to stay in your home)

Living (*measured*)

5. **Energy Production** – net-zero, renewable energy, resilience
6. **Dwelling Functionality** – functionality (HVAC, lighting, appliances, plumbing) - passive and active strategies in practice
7. **Water / Resource Optimization** – water reuse and recycling, building efficiency

Selling the Dream (*juried*)

8. **Technology** – technological innovations, working from home, entrepreneurship
9. **Market Viability** – scalability, replicability, cost, incentives & rebates, real estate appraisal, urban planning
10. **Public Awareness** – brand/communications, marketing, consumer (event attendee) education



Gateway Decathlon will take place in St. Louis, Missouri in late September thru early October 2025. All structures must be assembled at the site within a 10-day period before the competition begins.

- Housing units must not disturb the ground they sit upon (no basements)
- Size must be between 900 ft² and 1400 ft² (83.6 m² and 130.1 m²); height must not exceed 20 ft (6.1 m)
- Housing units must be energy self-sufficient; connection to an electric power grid will not be available at the site; battery storage is allowed

Applicants are encouraged to partner with related industries (e.g., A&E firms, builders, developers) who can add valuable experience and resources. Blending student creativity and innovation with the expertise of private industry will help create the most dynamic and successful teams possible.

Entries for Gateway Decathlon will be selected through a proposal evaluation process. All proposals received by the due date will be reviewed, scored, and ranked according to the instructions below. Subject to the quality and quantity of submissions, up to sixteen (16) teams will be chosen for entry. Each team selected will be given a participation stipend of \$100,000. **Teams selected will be announced by November 1, 2023.**

The stipend is not expected to cover all the expenses of each team project. As specified in Attachment A (Evaluation and Selection Process), fundraising, external team support, and industry engagement are part of the evaluation criteria for proposals submitted.

Specific instructions for responding to this solicitation follow. Proposals must address the criteria described in the Evaluation and Selection Process (Attachment A) and demonstrate their team's capacity to proceed and succeed.

How can new innovations improve the way we live, learn, work, and maintain good health? What methods can be employed to create more sustainable neighborhoods, residences and daily lives? How can housing be built and retrofitted faster and more economically, with less waste? We need you to join this effort to build a better future!

Instructions

Step One: Letter of Intent

All qualified teams that intend to submit a proposal to participate in Gateway Decathlon must submit a paragraph description of their intent by August 18, 2023.

Submit at GatewayDecathlon.com or via this link: Tinyurl.com/PlanToApply

The form on the link will request contact information, plus a paragraph describing your project

(If you have any issues, you can email this information to EventHQ@gatewaydecathlon.com)

Step Two: Proposal Submission

Submit your completed proposal by the end of the day on October 6, 2023.

Submit at GatewayDecathlon.com or via this link: Tinyurl.com/GatewayDecathlon2025

The link will prompt you for the following:

- A file (to upload) containing your team's *Technical Proposal* (see Attachments A & B for guidance)
- The information in the *Registration Form for Entry* (Attachment C)
- A digital signature from the primary faculty member for the proposed Gateway Decathlon team

NOTE: If it is easier, the faculty member can instead sign the cover page of the *Technical Proposal*, which will be uploaded to the link.

NOTE: If two or more institutions collaborate and submit one proposal, a faculty member from each institution must sign the cover page of the *Technical Proposal*.

All required documentation should be less than 25 megabytes in size.

Late Proposals and Withdrawals

Proposals received from qualified institutions after the due date may be considered if the Selection Committee determines that those proposals offer technical potential or other advantages. However, depending on the circumstances surrounding late submissions, the Selection Committee may consider a late offer as an indication of the applicant's performance capabilities, which may lead to downgrading the applicant's proposal. Proposals may be withdrawn by formal written notice from the institution.

ATTACHMENT A

Evaluation and Selection of Gateway Decathlon Teams

Each proposal will be limited to 10 pages, not including the cover page, table of contents, or any diagrams, charts, or appendices. A format guide (Attachment C) has been included to help with this process. Your proposal must be received by the end of the day on October 6, 2023.

Evaluation Process

All proposals will be evaluated in two stages:

Stage One—Initial Evaluation

Initial evaluation will determine whether the applicant has provided all required information (e.g., qualified institution, cover letter, signatures, etc.). Applicants may be contacted for clarification purposes during the initial evaluation. If a proposal is deemed unacceptable, the applicants will be notified, and the reasons for rejection will be given. Unacceptable proposals will be excluded from further consideration.

Stage Two—Evaluation, Selection, Negotiation, and Notification

Proposals that meet requirements will be evaluated to determine which teams have the most promising approaches and greatest potential for creating successful Gateway Decathlon entries. All Stage Two proposals will be evaluated against the qualitative merit criteria listed below.

Evaluation Criteria

These criteria are performance-based and permit selection of proposals that demonstrate higher qualitative merit. Evaluation criteria are listed in order of importance. Technical reviewers will base their conclusions primarily on information contained in proposals. It cannot be assumed that reviewers are acquainted with the institutions, key individuals, or any of their prior work or accomplishments.

Technical Innovation and Design: 30%

Proposal demonstrates that the institution(s) is taking an aggressive yet practical approach to the project. The institution(s) appears capable of meeting the challenge of Gateway Decathlon. Evaluators are looking for ideas and innovations with strong potential for success and with clear benefits for homebuyers and the housing industry. Environmental, safety, and health considerations are addressed for all phases of the competition, including assembly and disassembly in St. Louis, Missouri.

Multidisciplinary teams with members in the fields of architecture and design, engineering, construction management, material science, business, finance, and communications are encouraged.

Organization and Project Planning: 20%

Proposal demonstrates that the team understands the various complex steps and activities involved in the project. These activities are well-planned and organized, in order to ensure successful completion. The team's organizational chart and timeline should exhibit solid planning and clear understanding of steps necessary for a successful project.

Fundraising and Team Support: 20%

Proposal shows adequate understanding of costs associated with the project and the need for fundraising. Activities to support fundraising are addressed. Available resources and commitments for obtainable equipment, instrumentation, and facilities are adequately explained. Industry involvement in the project is considered a positive asset.

Communications and Marketing: 15%

Proposal has a strong plan for communications and marketing. Methods for public outreach should be reasonable and thoughtfully prepared. Evaluators are seeking teams that describe multiple and varied strategies to explain the unique features of their home in order to develop successful consumer education and marketing campaigns.

Institutional Support and Curriculum Integration: 15%

Proposal explains the level of institutional support that will help the team continue to make progress with their Gateway Decathlon project over the two-year period. Incentives are provided for students to make long-term commitments to the project through scholarships, independent study credit, paid research assistantships, or other paid or academic

compensation. Proposal has full commitment of college or university administration, including team members, with letters of commitment provided.

Special Considerations

Other important factors that may be considered in the evaluation include, but are not limited to, diverse geographic representation, team diversity and inclusiveness, and demonstrated history of success in design-build projects.

ATTACHMENT B

Technical Proposal Format Guide

Include the following sections - in this order - in your proposal. Font size should be 11 or larger. Note the strict 10-page limit, not including the cover page, table of contents, appendices or supplemental material.

COVER PAGE

Cover page should include the signature of an authorized official from each participating institution; if more than one institution will participate, signatures are needed from each.

TABLE OF CONTENTS

Topic with page numbers for each new section of the proposal

INTRODUCTION

Brief overview of the entire proposal

TECHNICAL INNOVATION AND DESIGN

Refer to the “Technical Innovation and Design” section

ORGANIZATION AND PROJECT PLANNING

Refer to the “Organization and Project Planning” section

FUNDRAISING AND TEAM SUPPORT

Refer to the “Fundraising and Team Support” section

COMMUNICATIONS AND MARKETING

Refer to the “Communications and Marketing” section

INSTITUTIONAL SUPPORT AND CURRICULUM INTEGRATION

Refer to the “Institutional Support and Curriculum Integration” section

SPECIAL CONSIDERATIONS

Other related information that shows how your team is especially well-suited for participation in Gateway Decathlon.

CONCLUSIONS

Summarize why your team should be selected to participate in Gateway Decathlon.

APPENDICES

If appropriate, include supplemental information such as resumes of team members, letters of support, and other relevant data.

General notes for proposal preparation:

- The cover page and table of contents are not counted as part of the 10-page maximum.

- The Team Participation and Release Agreement Form (Attachment D) is not counted as part of the 10-page maximum.
- Minimum size of written copy is Font 11.
- Top, bottom, and side margins should be one inch, excluding headers, footers, and page numbers.
- Main headings should all be boldfaced in uppercase letters.
- Subheadings should be boldfaced and with initial caps (first letter of each word capitalized).
- Avoid third-level headings.
- All units of measure should be given in both English and SI (metric) values.
- All artwork should be clean, easy to read and interpret.
- Do not include any borders or unnecessary graphics in the document.

ATTACHMENT C

Registration Form for Entry

Gateway Decathlon 2025

Team Name _____

Primary Institution Name _____

Institution Address _____

City, State, Zip Code _____

Primary Faculty Contact _____

Contact Address _____

City, State, Zip Code _____

Phone Number _____

Email _____

Primary Student Contact _____

School Affiliation _____

Phone Number _____

Email _____

Other participating faculty members, if applicable

Submit the information on this registration form at tinyurl.com/GatewayDecathlon2025
If you have trouble, you can submit the completed registration form with your proposal via email to: EventHQ@gatewaydecathlon.com. Registration forms are due October 6, 2023 as part of the RFP