AIA COTE® Top Ten

2021 Call for entries

The American Institute of Architects Committee on the Environment is currently accepting submissions for the 2021 AIA COTE® Top Ten Awards.

Recognition
Recognized projects will receive significant recognition, including acknowledgement in AIA publications, electronic media, and with an in person or virtual celebration.

Recipients may be asked by the AIA Communications department, or by various media representatives, for additional information about their projects. All submitted materials will become property of The American Institute of Architects.

Requirements
Please review each category for information about the deadline, eligibility, judging criteria, and submission requirements.

Questions?
aia.org/COTE
COTETopTen@aia.org

Cover image credit
Keller Center

Architect: Farr Associates in collaboration with Woodhouse Tinucci Architects

Photographer: Tom Rossiter

The AIA COTE® Top Ten Awards recognize 10 projects each year that exemplify the integration of design and performance. Using AIA's Framework for Design Excellence as the standard against which projects are evaluated, The COTE Top Ten program awards projects that demonstrate a holistic vision of architecture across all 10 of the framework's measures. In 2019, Committee on the Environment published two tools to help architects achieve consistent high performance on every project: The Toolkit and the SuperSpreadsheet. Project teams submitting for the 2021 awards are encouraged to use The Toolkit to assist with project narratives and to use the SuperSpreadsheet to ensure accurate calculations of the metrics. The last page of the SuperSpreadsheet generates a color-coded graphic that displays performance across all metrics. Submitting teams are encouraged to incorporate this graphic as part of their uploaded images. Beyond streamlining the Top Ten submission process, these tools can easily integrate into an architectural practice, providing day-to-day support and guidance for design excellence for all projects.

A goal of the Top Ten awards program is to recognize performance over intentions. While newly completed projects may be submitted, project teams are strongly encouraged to submit projects for which performance and occupant satisfaction data are available for 12 months or more with at least 75% occupancy. There is no time limit for submission after project completion, the more evidence of a project's contributions to real-world solutions, the better.

Finally, honesty is a fundamental element of sustainable design. Unlike other pursuits where competition leads to a zero-sum game, sustainability is different—success in this arena is essential to everyone. These awards programs exist so that architects can learn from the successes of the very best projects and move the entire profession forward. In order to jointly improve our work and realize our shared vision of a zero-carbon, equitable future, all submissions are expected have honest and transparent metrics, narratives, and images, and all claims should be substantiated with evidence. A misinterpretation of a measure or metric can be avoided by using the SuperSpreadsheet to calculate building performance metrics.

DEADLINE

All submissions must be received by 5pm ET on January 20, 2021.
The submission deadline date will be strictly observed; no exceptions will be made.

ELIGIBILITY

All architects licensed in the U.S. can submit their completed built projects, regardless of project size, budget, style, building type, or location. Entries are encouraged from both established and new practitioners and designers, and from small and large firms. Completed new buildings, renovations, restorations, interior architecture and urban/regional plans are eligible.

- COTE Top Ten projects must be completed at least three months prior to the submission deadline. "Completion" is synonymous with "substantial completion" as defined in the standard AIA documents governing construction.
- The entry is to be submitted by the architect.
- Submitting firms are required to be signatories to the AIA 2030 Commitment. Firms that are not currently a signatory firm are required to join the 2030 Commitment to be considered for an award.
- The submitting architect may qualify as a member of a design team, but is not required to be the project's lead. When one architect is not the sole author, all other participants contributing substantially to the design of the project must be given credit as part of the submission, regardless of professional discipline.
- Throughout the entire application, please provide the full name of the project without revealing the name of the architect or firm. Inclusion of firm name in any materials submitted (including narrative text, supporting documents, or file names) will cause your submission to be removed from the projects reviewed by the jury.
- A project that credits any 2021 AIA COTE Top Ten Awards jury member or his/her firm as architect, associate architect, consultant, or client is ineligible and will be disqualified if submitted.
- AIA will coordinate the promotion of award recipients with Architect Magazine. Certain photos will be held for exclusive use in a sustainability issue of Architect Magazine.

JUDGING CRITERIA

Each entry will be judged on how successful the project was in meeting its individual requirements, with particular emphasis on design excellence. Projects will be evaluated on a broad and inclusive definition of design quality that includes performance, aesthetics, community connection and resilience, and stewardship of the natural environment. The COTE Top Ten program was founded on the idea that sustainability is essential to design excellence, and vice versa. Therefore, a key criterion for judging projects is the integration of compelling design and sustainable performance.

Unpaid Labor Declaration Policy
If you cannot answer 'Yes' to the Unpaid Labor Declaration Policy, you are not eligible to submit for this award. Please contact HonorsAwards@aia.org should you have any questions concerning our Unpaid Labor Declaration Policy

Submission Approval Statement
If you cannot answer 'Yes' to the Submission Approval Statement, please contact the Submitting Architect to agree on a suitable resolution for proper credit. The Entrant and all architecture firms involved in the project agree that the information and/or materials being submitted are complete and accurate. Please list your firm name as the submitting architect associated with this project and respond to the statements below.

Project submission history
Is this project a resubmission or has it been submitted in the prior five years to another AIA program? If yes, please indicate the year and program submitted, and any recognition received when applicable.

SUBMISSION REQUIREMENTS

Registration Online registration is required for each project. Full instructions and a summary of the project data required can be found later in this document.

Entry fee
An architect or firm may submit more than one project, but each project requires payment of a separate non-refundable registration fee.

$500 (AIA members) | $850 (nonmembers)

Client authorization
Client authorization must be received by AIA to avoid disqualification. A separate email will be sent to your client in order to receive approval to enter this project into the AIA Architecture Award.

Digital images and drawings
Each project should be illustrated by at least 13 and no more than 18 digital images. Please include a minimum one image per measure, as well as a site plan, a typical floor plan, and a rendering. Emphasis should be placed on graphics that best inform the jurors about the innovative sustainable design solutions that have been developed. Include the appropriate credit and caption for each while not mentioning the architect or firm. Ideal images should be in JPEG format, minimum dimensions 2400x1350px and a maximum file size of 6000kb per image.

Submission requirements in detail

PROJECT ATTRIBUTES

Throughout the entire application, please provide the full name of the project without revealing the name of the architect or firm.

- Project location
- Year of design completion
- Date of substantial completion
- Gross conditioned floor area
- Number of stories
- Building program(s) (CBECS category if applicable)
- Project climate zone (ASHRAE, Title24, or other [specify])
- Annual hours of operation (#)
- Site area
- Choose one: Brownfield/Not previously developed/Previously developed site
- Choose one: Urban/Suburban/Rural
- Cost of construction, excluding furnishing
- Estimated unique annual users (residents, occupants, and visitors)

Jurors will NOT see the credit field, so firm names there are acceptable.

Submitting firms are required to be signatories to the AIA 2030 Commitment.

- Is the submitting firm a signatory to the AIA 2030 Commitment? (Y/N)
- What year did the firm last report in the DDx?
- Does the submitting firm have a third-party disclosure on ethical business practices such as a JUST label, B-Corp, or UN Global Compact?

THIRD-PARTY RATING SYSTEMS

If applicable, list any performance-based rating systems achieved, and upload the scorecard of any results.

- LEED
- LBC
- WELL
- Energy Star
- Net Zero Energy
- Passive House
- Other

AIA COTE Top Ten measures

M1 DESIGN FOR INTEGRATION

What are the big ideas behind this project—and how did the sustainability approach inform the design concept? Describe the project, the program, and any unique challenges and opportunities. Specifically, explain how the design is shaped around the project's goals and performance criteria, providing both utility, beauty, and delight. How does the project engage all the senses for all its users and connect people to place? What makes this building one that people will fight to preserve? Give examples of how individual design strategies provide multiple benefits across the full triple bottom line of social, economic, and environmental value.

M2 DESIGN FOR EQUITABLE COMMUNITIES

Sustainability is inextricably tied to the well-being of communities. Describe specifically how community members, inside and outside the building, benefit from the project. How were community members engaged during the design and development process? How does the project promote social justice at local, regional, and global scales? How does this project contribute to creating a walkable, accessible, and human-scaled community inside and outside the property lines? Transportation-related emissions negatively affect public health, and CO_2 emissions associated with how people reach a building are frequently comparable to the CO_2 emissions associated with operating the building.

METRICS

Mandatory

- Walk score
- Bike score
- Transit score
- Number of parking spaces
- Number of parking spaces required by local zoning code
- Percent reduction in parking spaces by code
- Number of covered and secure bike parking spaces

Encouraged

- From a survey of building users, what percentage of building occupants typically commute via alternative transportation (biking, walking, mass transit, etc.) or telecommute?
- How many occupants per available shower?
- What kind of access does the community have to the project? (full access, indoors and out; full access to site, partial access to interior; partial access to site; no access)
- On-site food production? (Y/N)
  - » If so, elaborate in the narrative.

Design intent

- One sentence for each:
  - » Which community stakeholders were identified by the design team?
  - » How were they engaged during the design process?

  - » Give an example of how the project benefits someone who's not directly associated with the project.
  - » How does the project facilitate movement to and from the site?
  - » What services does the project provide to the surrounding community (e.g., farmers' markets, polling stations, clinics, etc.)?
- How does this project and site promote (Provide an example for each.):
  - » Mental restoration
  - » Physical activity
  - » Social connection
  - » Cultural understanding

Please explain if a mandatory metric is unavailable or a metric requires additional interpretive information. (short answer)

M3 DESIGN FOR ECOSYSTEMS

Sustainable design protects and benefits natural ecosystems and habitat in the presence of human development. Describe the larger or regional ecosystem (climate, soils, plant, and animal systems) in which the project is sited. In what ways does the design respond to the ecology of this place? How does the design help users become more aware or connected with this place and their regional ecosystems? How does the design minimize negative impacts on birds or other animals (e.g., design to prevent bird collisions, dark-sky compliant lighting). How does the project contribute to biodiversity and the preservation or restoration of habitats and ecosystem services?

METRICS

Mandatory

- Is this a previously developed site? (Y/N)
- Percentage of site area supporting vegetation before the project.
- Percentage of the site area that is vegetated (landscape or green roof) post-development.
- Percentage of site area covered by native plants that support native or migratory species and pollinators.
- Intentional design strategies were used to promote: (Check all that that apply.)
  - Biodiversity
  - Dark skies
  - Bird safety
  - Soil conservation
  - Carbon sequestration
  - Habitat conservation, flora/fauna
  - Abatement of specific regional environmental concerns
  - Other

Design intent

Provide one example:

- What does this project do to regenerate the natural ecosystem on-site?

Please explain if a mandatory metric is unavailable or a metric requires additional interpretive information.

M4 DESIGN FOR WATER

Sustainable design conserves and improves the quality of water as a precious resource. Illustrate how various water streams flow through the building and site, including major water conservation and stormwater management strategies. How does the project relate to the regional watershed? Describe strategies to reduce reliance on municipal water sources. Does the project recapture or reuse water?

METRICS

Mandatory

- Is on-site potable water use regularly metered and monitored? (Y/N)
- Is water use submetered? (Y/N)
- Was water consumption modeled? (Y/N)
- Is potable water used for non-potable uses (e.g., irrigation, toilet flushing)? (Y/N)
- Is rainwater collected and stored for on-site use? (Y/N)
- What non-potable water sources are collected for reuse? (Check all that apply.)
    - roof rainwater
    - grey water
    - condensate
    - foundation water
    - site surface water
- What are the end uses of this collection? (Check all that apply.)
    - Irrigation
    - Non-irrigation site water
    - Toilets
    - Mechanical
    - Process
    - Potable
- Percentage of rainwater managed on-site (from maximum anticipated 24-hour, two-year storm event).
- Percentage of the site area that is vegetated using irrigated turf grass.

Encouraged

- Is potable water quality routinely monitored, filtered, or treated? (Y/N)
- Measured annual water use (per building, sf, or occupant).
- Predicted annual water use (per building, sf, or occupant).
- Percentage of potable water reduced through efficiency measures (LEED calculator).
- Percentage of potable water offset by other water sources.
- Percentage of blackwater treated on-site.

Design intent (Provide one sentence for each.)

- Describe the quality of the water that runs off the site.
- Describe the project's water resilience strategies.
    - » Provide one sentence describing the project's major potable water conservation strategy for each end use:
        - Fixtures
        - Irrigation
        - Mechanical systems
        - Process systems

Please explain if a mandatory metric is unavailable or a metric requires additional interpretive information.

M5 DESIGN FOR ECONOMY

Providing abundance while living within our means is a fundamental challenge of sustainability. How does the project provide "more with less"? Possibilities include "right sizing" the program, cost-effective design decisions, economic performance analysis, economic equity strategies, notable return-on-investment outcomes, contributing to local and disadvantaged economies, etc. Provide examples of how first-cost and life cycle cost information influenced design choices. Identify any additional first-cost investments and how they are anticipated to improve life cycle costs and longer-term economic performance.

METRICS

Mandatory

- Construction cost per square foot

Encouraged

- Were life cycle costs calculated? (Y/N)
- What is the timeframe for the life cycle cost calculations?

Design intent (Provide one sentence for each.)

- Describe right-sizing strategies and considerations.
- How did design choices minimize materials usage, allowing for lower cost and more efficiently designed systems/structure?
- Provide one sentence on the strategies used to reduce cost and/or increase value for each of the following:
  - First costs
  - Utilities
  - Maintenance
  - Cleaning
  - Occupant health and well-being
  - Flexibility, adaptability, and/or resilience

Please explain if a mandatory metric is unavailable or a metric requires additional interpretive information.

M6 DESIGN FOR ENERGY

The burning of fossil fuels to provide energy for buildings is a major component of global greenhouse gas emissions, which is driving climate change. Sustainable design conserves energy while improving building performance, function, comfort, and enjoyment. How did analysis of local climate inform the design challenges and opportunities? Describe any energy challenges associated with the building type, intensity of use, or hours of operation, and how the design responds to these challenges. Describe energy-efficient design intent, including passive design strategies and active systems and technologies. How are these strategies evident in the design, not just the systems?

METRICS

Use EPA's Target Finder, AIA's 2030 Commitment Reporting Tool, or the Architecture 2030 Challenge reference materials to provide comparison baselines for energy use and to convert utility-provided energy consumed into equivalent carbon emission impact.

Mandatory

Energy

- Predicted gross EUI (include all site energy uses, exclusive of on-site generations and purchased credits of offsets)
- Measured gross EUI (include all site energy uses)
  - » Note if COVID-19 altered occupancy during the measured year.
- Benchmark EUI for this building type (from the 2030 baseline)
  - » Benchmark source (Target Finder, 2030 DDx, Zero Tool, SuperSpreadsheet, ASHRAE 90.1 Appendix G baseline model)
- Percent reduction in energy from the benchmark, excluding on-site renewables
- Is energy generated on-site? (Y/N)
  - » If so, what was the net EUI achieved (include all site energy uses, including on-site generation but excluding purchased credits or offsets)?
- Were renewable energy credits or offsets purchased for this project? (Y/N)
  - » If so, describe the process and impact.
- All electric building? (Y/N)

High-performance characteristics

- Measured lighting power density (LPD) (W/sf)
- Percent LPD reduction from IECC 2007
- Percent window-wall ratio
- Was energy modeling used to inform design decisions? (Y/N)

Operational carbon

- Operational emissions mT CO2/sf/yr (from the DDx)

Encouraged

- Energy model results via attachment
- Actual energy recorded per month or end use via attachment
- Percent WWR by orientation (N, S, E, W)
- Design intent (Provide one sentence for each.)
- Explain any difference between measured and predicted EUI.
- Describe your enclosure (wall, roof, and window) specification for optimizing climatic performance (U-value, SHGC, VT, shading, dynamic, etc.).
- Describe the primary strategy for reducing operations carbon (scope 1: direct emissions; scope 2: indirect emissions).

Please explain if a mandatory metric is unavailable or a metric requires additional interpretive information.

M7 DESIGN FOR WELL-BEING

Sustainable design supports comfort, health, and wellness for the people who inhabit or visit buildings. Describe strategies for optimizing daylight, indoor air quality, connections to the outdoors, and thermal, visual, and acoustical comfort for occupants and others inside and outside the building. How does the design promote the health of the occupants? Describe design elements intended to promote activity or exercise, access to healthy food choices, etc. Outline any material health strategies, including any materials selection criteria based on third-party frameworks, such as Health Product Declarations (HPDs), Living Building Challenge Red List, EPA chemicals of concern, etc. Include key results on occupant comfort from occupant satisfaction surveys.

METRICS

Mandatory data

- Do greater than 90% of occupied spaces have a direct view to the outdoors? (Y/N)
- Was daylight modeled to inform design decisions? (Y/N)
  - » If so, summarize results.
  - » Percent spatial daylight autonomy
- (workplaces) How easily can occupants control their own thermal comfort and lighting?
  - » How many occupants per thermal zone or thermostat?
  - » Percentage of occupants who can control their own light levels.
  - » Percentage of occupants who have access to operable windows.
- Was a "chemicals of concern" list used to inform material selection? (Y/N)
  - » If yes, please explain in one sentence
- HPD: Were Health Product Declarations (HPDs) collected? (Y/N)
  - » If so, summarize results.
  - » If no, describe alternative strategies for healthy material selection.
- What level of air filters are installed? (Less than MERV 9, MERV 9–11, MERV 12–14, MERV 15–16, HEPA, ULPA)
- Is air quality monitored on an ongoing basis? (Y/N)
  - » If so, check all IAQ metrics that are being tracked: %RH, CO2, TVOCs, PM2.5, PM10, other.
- If the project is in a humid climate, is standalone dehumidification installed? (Y/N/NA)
- What is the design maximum CO2 in PPM?

Encouraged

- Provide further modeled daylight metrics.
- What percentage of occupied spaces have a direct view to the outdoors?

Design intent (Provide one sentence for each.)

- Major strategy for improving indoor air quality
- Major strategy for improving indoor acoustical
- Major strategy for encouraging occupant movement
- Major strategy for providing healthy foods

Please explain if a mandatory metric is unavailable or a metric requires additional interpretive information.

M8 DESIGN FOR RESOURCES

Sustainable design includes the informed selection of materials and products to reduce product-cycle environmental impacts while enhancing building performance. Describe efforts to optimize the amount of material used on the project. Outline materials selection criteria and considerations, such as enhancing durability and maintenance and reducing the environmental impacts of extraction, manufacturing, and transportation. Identify any special steps taken during design to make disassembly or reuse easier at the building's end of life. What other factors helped drive decision-making around material selection on this project?

METRICS

Mandatory

- Total embodied carbon in metric tonnes (Use buildcarbonneutral.com to establish a comparable baseline, even if you also used a more sophisticated tool.)
- Was construction waste considered and tracked on this project? (Y/N)
  - » If so, summarize results.
- Which of the following environmental product declarations did you collect?
  - » Product-specific LCA
  - » Industrywide generic EPDs
  - » Product-specific, Type III external EPDs
  - » Declare Labels
  - » C2C
  - » Other
  - » None
- Was material reuse considered and tracked on this project? (Y/N)
  - » If so, summarize results.
- Was recycled content considered and tracked on this project? (Y/N)
  - » If so, summarize results.
- Did you track the percentage of project materials extracted and manufactured regionally? (Y/N)
  - » If so, summarize results.
- Is the majority of wood used in this project certified by FSC? (Y/N)

Encouraged

- Was a whole building life cycle assessment (LCA) conducted? (Y/N)
  - » If so, identify tools used. (Tally, Athena, One Click LCA, GaBi, Other)
  - » Scope (Check all that apply.)
  - » Result kg CO2/m2
- Which major strategies were used to decrease embodied carbon? (Check all that apply.)
  - Wood structure
  - Optimized concrete admixtures
  - Reduction in total materials
  - FSC lumber
  - Low-carbon insulation
  - Low-carbon exterior cladding material
  - Reduction in glazing
  - Low-carbon refrigerants
  - Other: (list)

Design intent (Provide one sentence for each.)

- Describe the project team's material selection criteria.

Please explain if a mandatory metric is unavailable or a metric requires additional interpretive information.

M9 DESIGN FOR CHANGE

Reuse, adaptability, and resilience are essential to sustainable design, which seeks to maintain and enhance usability, functionality, and value over time. Describe how the project is designed to facilitate adaptation for other uses and/or how an existing building was repurposed. What other uses could this building easily accommodate in 50–100 years? In what ways did the design process take into account climate change over the life of the building? Describe the project's resilience measures: How does the design anticipate restoring or adapting function in the face of stress or shock, such as natural disasters, blackouts, etc.? How does the project address passive survivability (providing habitable conditions in case of loss of utility power)?

METRICS

Mandatory

- Percentage of project floor area, if any, that was adapted from existing buildings.
- Was research conducted on the most likely local hazards? (Y/N)
  - » If yes, (Check all that apply.):
    - hail
    - earthquakes
    - drought
    - extreme temperatures
    - flooding
    - epidemic
    - social unrest
    - utility disruption
    - other
- Can the project maintain function without utility power?
  - » Not habitable without power
  - » Passive survivability
  - » Partial backup power
  - » Full backup power
- What type of backup power did you have?
  - » renewable/battery
  - » grid/battery
  - » fossil fuel generator
- What percentage of project power needs are met by onsite power generation?

Encouraged

- How does the project respond to the local hazards identified? (2 sentences)
- Can the building be used as a safe harbor to support a community during a crisis? (Y/N)
  - » If so, explain.
- How many hours can the building function through passive survivability?
  - » Explain your calculations.

Design intent

- How does the project respond to the local hazards identified? (2 sentences)

Please explain if a mandatory metric is unavailable or a metric requires additional interpretive information.

M10 DESIGN FOR DISCOVERY

Sustainable design strategies and best practices evolve over time through documented performance and shared knowledge of lessons learned. What lessons for better design have been learned through the process of project design, construction, and occupancy, and how have these been incorporated in subsequent projects? Describe ways the lessons have been shared with a larger audience (publications, lectures, etc.) and any ways the project may have influenced industry practices. Describe the processes used to maintain a long-term relationship between the design team and those occupying and operating the building, and identify how both the users and designers benefited.

Projects with exemplary actual performance and post-occupancy information will be highlighted among the award recipients.

METRICS

Mandatory

- Were integrated design processes engaged early in the project for establishing project performance goals and strategies? (Y/N)
  - » If yes, describe the process and outcomes.
- What level of commissioning was undertaken on this project? (Check all that apply.)
  - None
  - Basic commissioning (system designer)
  - Enhanced commissioning (third party)
  - Enhanced commissioning (third party, engaged early)
  - Continuous commissioning
  - Enclosure commissioning
- Has a post-occupancy evaluation, including surveys of occupant comfort, been performed? (Y/N)
- Which of the following post-occupancy steps were taken? (Check all that apply.)
  - Contact the owner/occupant to see how things are going
  - Obtain utility bill to determine actual performance
  - Survey building occupants on satisfaction
  - Formal on-site daylight measurements
  - Share collected data with building occupants
  - Formal post-occupancy air quality testing
  - Data logging of indoor environmental measurements
  - Post-occupancy energy analysis
  - Develop and share strategies to improve the building's performance
  - Teach occupants and operators how to improve building performance

- Which of the following building performance transparency steps were taken? (Check all that apply.)
    - Present the design of the project to the office
    - Present the design of the project to the profession
    - Present the design of the project to the public
    - Present outcomes and lessons learned to the office
    - Present outcomes and lessons learned to the profession
    - Present outcomes and lessons learned to the public
    - Publish post-occupancy data from the building
    - Publish any lessons learned from design, construction, or occupancy
- Were lessons learned through post-occupancy used to improve subsequent projects? (Y/N)
    - » If so, give an example.

Encouraged

- Did the project engage in a professional peer review of drawings or specifications during design? (Y/N)
- Did the project engage in post-occupancy performance testing (blower door test, thermal imaging, etc.)? (Y/N)
    - » If yes, describe the process and outcomes.