

AIA COTE® Top Ten

2019 Call for entries

The American Institute of Architects Committee on the Environment is currently accepting submissions for the 2019 AIA COTE® Top Ten Awards.

2019 AIA COTE® TOP TEN AWARDS

The AIA COTE® Top Ten Awards recognize ten projects each year that exemplify the integration of design excellence and sustainable performance. It rewards the highest achievements in both design intent and actual performance across the triple bottom line of social, economic, and environmental value.

While newly completed projects may be submitted, project teams are strongly encouraged to submit projects for which performance and occupant satisfaction data are available a period of 12 months or more with at least 75 percent occupancy. There is no time limit for submission after project completion.

Until 2017, the COTE® Top Ten award recognized ten projects based largely on predicted performance, while award recipients from previous years were eligible to submit post-occupancy data and narratives to be recognized with a single COTE® Top Ten Plus award. In 2017, these separate tracks were merged: The 'Plus' designation denotes projects with exemplary actual performance and post-occupancy lessons. There will be only ten award recipients total, but any number of them may receive the COTE® Top Ten Plus designation. Previous COTE® Top Ten award recipients are ineligible to submit.

DEADLINE

All submissions must be received by 5pm EDT on January 16, 2019. 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 firms and large.

- 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 signatory 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 projects 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 2019 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.

Recognition

Recognized projects will receive significant recognition, including acknowledgement in AIA publications, electronic media, and at AIA Conference 2019 in Las Vegas.

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.

Acknowledgements

The AIA Committee on the Environment wishes to thank Building Green/Environmental Building News for their generous support of this program.

Requirements

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

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.

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.
\$425 (AIA members) | \$850 (nonmembers)

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.

QUESTIONS?

aia.org/COTE

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2019 AIA COTE®

Top Ten Awards Jury

Nancy Clanton

Clanton & Associates
Boulder, CO

Paul Mankins, FAIA

Sudstance Architecture
Des Moines, IA

Christina Moss, AIA

Studio Ma
Phoenix, AZ

Christoph Reinhart

MIT
Cambridge, MA

Allison Williams, FAIA

AGWms studio
San Francisco, CA

Cover image credit

Doublespace Photography

COTE® Top Ten Measures

graphics

courtesy Alexandra Alepohoritis

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. Inclusion of firm name will cause your submission to be removed from the projects reviewed by the jury.

- Project location
- Year of design completion
- Date of substantial completion
- Gross conditioned floor area; Gross unconditioned 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/Greenfield
- Choose one: Urban/Suburban/Rural
- Cost of construction, excluding furnishing
- Total annual users and include all types (residents, occupants, and visitors) to reflect the scale of the project
- Is the submitting firm a signatory to the AIA 2030 Commitment? (Y/N)
Submitting firms are required to be signatories to the [AIA 2030 Commitment](#).
If a signatory for more than 1 year, was the firm portfolio data uploaded to the AIA DDx tool in the most recent year? (Y/N)

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

THIRD-PARTY RATING SYSTEMS

List any performance-based rating systems pursued or achieved and upload the scorecard and/or summary of results.

	Registered	Certified
LEED: v4 / v2009 / earlier (choose)	Y / N	Y / N Certified Silver Gold Platinum
Living Building Challenge	Y / N	Y / N
WELL	Y / N	Y / N
Other: _____		

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M1 Design for Integration (<300 words)



What is the big idea behind this project—and how did the approach towards sustainability inform the design concept? Describe the project, 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 Community (<200 words)



Sustainability is inextricably tied to the wellness of communities.

Describe specifically how community members, inside and outside the building, benefit from the project. How does this project contribute to creating a walkable, human-scaled community inside and outside the property lines? How were community members engaged during the design and development process? How does the project promote social equity at local, regional, and global scales? Because transportation-related emissions negatively affect public health, and because CO₂ emissions associated with how these reach a building are frequently comparable to the CO₂ emissions associated with operating the building.

METRICS

Mandatory

Community Engagement: Indicate the overall character of the community engagement in the design process:

- No community engagement practices were applied for this project
- Inform: Potential stakeholders were informed about the project
- Consult: Stakeholders were provided with opportunities to provide input at pre-designed points in the process
- Involve: Stakeholders were involved throughout most of the process
- Collaborate: A partnership is formed with stakeholders to share in the decision-making process including development of alternatives and identification of the preferred solution.
- [Walk Score](#) (a [metric of the walkability](#) of the neighborhood surrounding the site, which correlates with both greater occupant health and lower transportation emissions.)

Encouraged

- From a survey of building users or other method, estimate percentage of building occupants who commute via alternative transportation (biking, walking, mass transit, etc.)
- Estimate the annual carbon emissions associated with the transportation of those coming to or returning from the building (metric tons/year). Use the [US Department of Transportation guidance](#) for car and public transit commuting (0.2–1.0 lb CO₂ per mile); approximate walking and biking at 0 lb CO₂/mile.
 - For comparison, express the estimated carbon emissions associated with operating the building in Measure 6 in the same units here: (metric tons/year. To convert lbs to metric tons, use 1 metric ton = 2205 lbs).

M3 Design for Ecology (<200 words)



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 complaint lighting). How does the project contribute to biodiversity and the preservation or restoration of habitats and ecosystem services?

METRICS

Mandatory

- Percentage of the site area designed to support vegetation (landscape or green roof) _____ %
- Percentage of site area supporting vegetation before project began _____ %
- Percentage of landscaped areas covered by native or climate-appropriate plants supporting native or migratory animals _____ %

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

M4 Design for Water (<200 words)



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 re-use water?

METRICS

Mandatory

- Predicted annual consumption of potable water (gal) [per resident, per visitor, per FTE, as appropriate], for all uses, excluding process water (such as cooling towers). Downloadable tools are available to estimate [indoor](#) and [outdoor](#) water consumption. Express predicted indoor water use as a % reduction compared with federal standards.
- Is potable water used for irrigation (after initial plant establishment period)? (Y/N)
- Typical values to expect depend on building type, with values in the range [10–15 gallons per square foot per year being common for commercial buildings](#), and [70 gallons per person per day being common for indoor uses in US residences](#).

Encouraged

- Actual annual consumption of potable water (gal) [per resident, per visitor, per FTE, as appropriate], for all uses
- If project has substantial process water loads (cooling towers), estimate annual water consumption in gallons/year
- Is rainwater captured for use by the project? (Y/N) If so, what percentage of water consumed onsite comes from rainwater capture? _____ %
- Is greywater or blackwater captured for re-use? (Y/N) If so, what percentage of water consumed onsite comes from greywater/blackwater capture and treatment? _____ %
- Percent of rainwater (from maximum anticipated 24-hour, 2-year storm event) that can be managed on site
- Metrics of water quality for any stormwater leaving the site. For example, what is the % of Total Suspended Solids (TSS) removed from stormwater runoff? Refer to the [EPA's Guidance Specifying Management Measures for Sources of Non-Point Pollution in Coastal Waters \(Chapter 4, table 4-7\)](#).

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

M5 Design for Economy (<200 words)



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 lifecycle 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

- Cost per square foot

Encouraged

- Comparable cost per square foot for other, similar buildings in the region. List source.
- Alternate unit cost measures: cost per employee [for a workplace], cost per resident [residential projects]), etc.
- Estimated operating cost reduction (identify baseline) (%)
- Life Cycle Analysis of the costs associated with measures taken to improve performance (e.g., energy cost payback, water savings, measured productivity gains)

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

M6 Design for Energy (<200 words)



The burning of fossil fuels to provide energy for buildings is a major component of global greenhouse gas emissions, 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

- **Predicted Consumed Energy Use Intensity (Site EUI): kBtu/sf/yr**
Total energy use by the facility including energy purchased from utilities and provided by on-site renewable sources. If available, provide a breakdown by energy end use (e.g., lighting, heating...) via attachment. (identify which simulation tool was used)
- **Predicted Net EUI (kBtu/sf/yr) and Carbon emissions (lb/sf/yr)**
Net purchased energy use (total energy use, less any energy generated on-site from renewable resources).

- **Predicted Percent Reduction from National Average EUI for Building Type _____%**
- **Predicted Lighting Power Density (W/sf)**

Strongly Encouraged

- **Actual Consumed Energy Use Intensity (Site EUI): kBtu/sf/yr**
Total energy use by the facility including energy purchased from utilities and provided by on-site renewable sources. If available via sub-metering, provide a breakdown by energy end use (e.g., lighting, heating...) via attachment.
- **Actual Net EUI (kBtu/sf/yr) and Carbon emissions (lb/sf/yr)**
Net purchased energy use (total energy use, less any energy generated on-site from renewable resources).
- **Actual Percent Reduction from National Average EUI for Building Type _____%**

Site EUI values for buildings depend on building type, climate, and occupancy, with typical values for single-family homes in the range of 30–60kBtu/sf/yr, offices 50–80, hospitals 150–300, and laboratories 200–600 kBtu/sf/yr.

To estimate the emissions associated with the energy used by the buildings, it is acceptable to assume national average values of 1.2 lb CO₂/kWh (electricity) and 12 lb CO₂/therm (natural gas). Typical values in the range of 10–20 lbs CO₂/sf/yr are not uncommon for residential and office buildings.

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

M7 Design for Wellness (<200 words)



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

- (Percentage of floor area or percentage of occupant work stations) with direct views of the outdoors
- (Percentage of floor area or percentage of occupant work stations) within 30' of operable windows
- (Percentage of floor area or percentage of occupant work stations) achieving adequate light levels without the use of artificial lighting, by simulation or by direct measurement of the finished building, at a typical single point in time (>300 lux at 3pm March 21)
- [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 _____%

Encouraged

- Peak measured CO₂ levels during full occupancy (ppm). For reference, outdoor air CO₂ levels typically fall in the range of 400–450ppm; standard levels of ventilation typically result in steady-state CO₂ levels in the range of 800–1200ppm. [Test subjects in environments below 600 ppm score significantly higher in measures of cognitive function.](#)
- Peak measured VOC levels during full occupancy (micrograms/m³). Standard offices typically report VOC levels in the range of 500–700 micrograms/m³. Test subjects in environments with VOC levels below 50 micrograms/m³ [score significantly higher in measures of cognitive function.](#)
- Annual daylighting performance (Spatial Daylight Autonomy: % of regularly occupied area achieving at least 300 lux at least 50% of the annual occupied hours)
- Percentage of materials, by value, incorporating health criteria such as HPD or Red List compliances (specify which criteria)

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

M8 Design for Resources (<200 words)



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 re-use easier at the building's end of life. What other factors helped drive decision-making around material selection on this project?

METRICS

Mandatory

- **CO₂ intensity:** Estimated carbon emissions associated with building construction, including the extraction and manufacturing of materials used in construction (lbs CO₂/sf). Specify tool used (simple 1-page tools such as [The Construction Carbon Calculator](#) or more comprehensive tools such as Athena, Tally, or other). [Expect values](#) in the range of 50–200 lbs CO₂/sf.

Encouraged

- **LCA:** Were other life-cycle assessments (LCAs) conducted? (Y/N)
If so, identify tools used and summarize results.
- **EPD:** Were environmental product declarations (EPDs) collected? (Y/N)
If so, summarize results.
- Percentage (by weight) of construction waste diverted from landfill
- Percentage of materials reused from existing buildings or other local sources (identify appropriate metric—weight, volume, cost)
- Percentage of recycled content of building materials (by cost)
- Percentage (by cost) of the project materials extracted and manufactured regionally (specify distance).
- Percentage (by cost) of materials used with comprehensive third party certifications (e.g. Declare, Cradle to Cradle—specify which system).

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

M9 Design for Change (<200 words)



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 represents adapting existing buildings
- Anticipated number of days the project can maintain function without utility power

Encouraged

- Percentage of power needs supportable by onsite power generation
- Carbon emissions saved through adaptive reuse vs new construction (provide calculations and source)
- LEED Resilience Pilot Credit or other resilience rating system metrics (e.g., RELi)

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

M10 Design for Discovery (<200 words)



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

- Has a post-occupancy evaluation, including surveys of occupant comfort, been performed? (Y/N)
- If so, summarize results.

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