ARCHITECTURAL ENGINEERING INSTITUTE

AEI International Student Design Competition ADDENDUM 2026

Building Information

Adam C. Sinn Academic & Wellness Center is an 84,000-square foot student-athlete support center at Texas A&M University in College Station, TX. Situated within the Graham Athletic Complex, the center is designed to support the academic and overall wellbeing of over 600 student-athletes at Texas A&M Athletics. This state-of-the-art facility reflects Texas A&M's commitment to excellence and will support the holistic development of Aggie student-athletes for generations to come.

The facility includes 75 study and tutor rooms, 60 offices for student support staff, a 2,000-square foot multipurpose room, two large conference rooms, 6,000-square feet of open study and collaboration space for student-athletes.

Students also have access to a recording studio and podcast room with broadcast ready environments, Lina and Dennis Clark state-of-the-art Nutrition Center – a 300-person dining facility, which includes a 4,000-square foot outdoor patio that can accommodate another 200 people for outdoor events.

For the purpose of the AEI International Student Design Competition, the target total building budget will be \$60 million. Costs associated with the Challenges listed below should be budgeted separately and included as add alternates.

The Challenges

The competition will challenge the student teams to address the design, integration, and construction issues associated with this project. Please keep in mind that the Challenges presented have been created for the sole purpose of the Student Design Competition. *Teams are highly encouraged to address the following challenges in their submissions:*

Resilience: Tornado Safe Room

Being conscious of the geographic location and related weather impacts of the project and in light of recent natural disaster events, the Competition challenges the student teams to design this facility to a higher level of performance than standard code in regard to resiliency for its occupants. The design and construction team is tasked to design the building such that it will serve as a community shelter if a natural disaster (such as a tornado or high inline winds) impacts the surrounding community (town or university) causing or threatening damage. The building structure should be able to resist the loads and movement associated with local natural disasters as determined by the student teams.

As a minimum, the Competition is requiring the entire building to be designed to Risk Category IV appropriate for community shelter occupancy and functions after the event. Details on the exact performance level should be selected and justified by the team. To serve as a community shelter, the building envelope (walls and roofs) must also maintain their integrity during the event of severe weather, related wind loads.

To protect individuals working in and around the building during a tornado, a segment of the building is to be sized as a safe room for a higher resiliency level (than the rest of the building). Teams are to locate and size the safe room space based on their projected estimates of occupant load (of a typical non-event day) that meet safe room requirements by FEMA for a minimum of a category EF3 tornado. This space may be integrated with current spaces or may

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be constructed as an addition. If space is increased to provide a safe room, additional costs for the addition must be fully justified along with the space allocation. As part of the community shelter requirement, student teams must provide a plan for operating the building for a minimum of 7 days "off grid" (until utilities can be restored) with only essential critical systems functioning to include power, HVAC, and life safety systems. To meet the community security design requirements, the student teams are to develop solutions that are common practice in a facility of this nature for day-to-day functions including emergency protocols and system design features.

Sustainability: Embodied Carbon Reduction

Incorporating sustainable materials and processes in 21st century buildings calls for an urgent and strategic review of raw material usage, energy-efficiency strategies, and waste reduction practices that begin at a project inception and carry through to the operation and maintenance of the completed building. With ever increasing consumer and regulatory demands, the present sustainability imperative requires careful selection of materials with higher recycled content and lower carbon and embodied energy footprints. This challenge requires teams to track, calculate and document the impact of materials and construction processes deployed to minimize the overall amount of carbon embodied in the building.

Ownership requires the design team to conduct a life cycle assessment (LCA) of the project's structure and enclosure using software such as Athena, Buildings and Habitats object Model, GREET Building LCA Model, LCA OneClick, or tallyLCA.

Ownership would like the project team to demonstrate a minimum of 10% reduction over a baseline building in a minimum of three of the following categories, one of which must be global warming potential:

- global warming potential (greenhouse gases), in kg CO2e
- depletion of the stratospheric ozone layer, in kg CFC-11e
- acidification of land and water sources, in moles H+ or kg SO2e
- eutrophication, in kg nitrogen eq or kg phosphate eq
- formation of tropospheric ozone, in kg NOx, kg O3 eq, or kg ethene; and
- depletion of nonrenewable energy resources, in MJ using CML / depletion of fossil fuels in TRACI.

Baseline building should be evaluated using the same software and methods and should be of comparable, size, function, climate, and orientation. Baseline assumptions must be based on standard design and material selection for the project location and building type Data sets must be compliant with ISO 14044.

Wellness-Technology: Community Event

Teams are tasked with integrating wellness as a core design principle in the development of the Adam C. Sinn Academic and Wellness Center. The goal is to create a space that not only supports physical activity and academic performance but also enhances the mental, emotional, and social well-being of its occupants.

Teams must demonstrate how their designs contribute to a holistic wellness experience. This includes—but is not limited to—indoor air quality, thermal comfort, natural lighting, acoustics, biophilic design, accessibility, and spaces that promote social interaction and mental restoration.



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Additionally, teams must include a strategy to educate occupants about wellness features and/or provide a method to monitor and track wellness outcomes over time.

Competition Timeline

Student Team Registration closes: Wednesday, January 14, 2026 1:00 pm ET

Final Team Roster due: Wednesday, January 21, 2026 1:00 pm ET

Deadline for Written Submissions due: Monday, February 23, 2026 1:00 pm ET

Team Rehearsals: Wednesday, March 18, 2026 Finalist Presentations: Thursday, March 19, 2026

Award Ceremony: Friday, March 20, 2026

~NEW in 2026~

As noted in the 2026 Program, each University with a team enrolled in the competition is automatically invited to advance as Finalists to present their project to the jury at the AEI 2026 Conference. Teams will accept the invitation to proceed as a finalist by submitting their Final Team Roster by the requested deadline, and by submitting their final written submission by the deadline. Failure to meet either deadline will automatically disqualify the team from being a Finalist. All teams may continue to work on their projects after the written submission in preparation for the finalist presentations. The architectural engineering programs are encouraged to have competing students present their projects to their peers and faculty. It is also encouraged that they receive comments and suggestions from these individuals at multiple instances throughout the project.