COMPETITION PROGRAM
The Architecture at Zero competition challenge is to create a zero net energy recreation center at the campus of California State University at Monterey Bay. Two new buildings will be constructed in two phases and will replace two existing buildings and parts of two parking lots.

There are two parts to the competition:
First, entrants will create an overall site plan to accommodate the program outlined below. Entrants are encouraged to highlight any energy efficiency strategies or systems shown. Second, entrants will design two attached buildings in detail, to indicate zero net energy (ZNE) performance. In order to demonstrate the building design and its performance, entrants will provide required documentation and may also include supplementary documentation.

NOTE that these buildings will be built in two phases. Entrants should indicate which building is Phase I and which is Phase II.

THE CHALLENGE

The new Student Recreation Center will be comprised of two buildings totaling 70,000 square feet. This project would be located on the campus south of the Main Quad and Divarty Street. New construction will require the demolition of Building 21 (Beach Hall) and Building 23 (Tide Hall), and portions of parking lots 23 and 508. The new facility will support recreation (approx. 52,000 sq ft) and the Kinesiology department (17,500 sq ft.). The Kinesiology Department has demonstrated steady growth in the last 5 years and lacks appropriate teaching spaces to support the curriculum.

Program:
Both buildings could be 1 or 2 stories and will be constructed in two phases (Phase I – 2021, approximately 33,000 SF; Phase II – 2026, approximately 36,000 SF).

Phase I Building: 33,000 SF
Kinesiology Department:
3000 SF Dry Lab
1000 SF Faculty offices
1400 SF Dance studio (teaching and rehearsal)

Recreation:
7000 SF  Physical Education space (1 multi-use indoor court for basketball, volleyball and/or indoor soccer)
4000 SF  Weight/cardio rooms
5000 SF  Faculty Offices
1000 SF  Conference Room
10,600 SF  Restrooms, locker, showers, custodial areas, laundry, kitchen

**Phase II Building: 36,000 SF**
14,000 SF  Two gyms (multi-use indoor courts for basketball, volleyball, indoor soccer)
5000 SF  Kinesiology and Recreation faculty offices
5000 SF  Kinesiology classrooms
6000 SF  Restrooms, locker rooms, showers, custodial spaces
6000 SF  Weight/cardio room

Only intramural sports will occur in the Recreation Center, not indoor athletic team competitions.

**CSUMB is interested in the requirements of the Living Building Challenge as a supplemental consideration.** General information about the Living Building Challenge can be found at [https://living-future.org/lbc/basics/](https://living-future.org/lbc/basics/) and details about the standard can be found at [https://living-future.org/product/lbc-3-1-standard/](https://living-future.org/product/lbc-3-1-standard/).

CSUMB has identified 2030 as its carbon neutrality goal. The university is approaching this goal on a campus-wide basis more than a building-by-building approach. Thus, while submissions may be net zero for the buildings in order to meet the intent of the competition, winners will be expected to demonstrate that entries can be connected to a district-scale energy system, that is also net-zero

**Other important considerations for design teams:**

Designs should be compatible with a heat source of heating hot water, not natural gas.

Solar panels can be utilized to achieve carbon neutrality however, they should not be placed on the roof of the building. The primary suggested location for the panels would be parking lot 59, which is “solar ready”.

The building roof should be considered for recreation, garden or lounge space. However, wind and fog are issues for the design teams to consider.

There will be an ocean view from the upper levels which should be capitalized on by design teams.

Building height should not exceed 70 feet.

**Integration with Campus Scale Systems**

The CSUMB team has developed a long-term strategy focused on transitioning to cleaner sources of energy at the whole campus level. Being a campus makes CSUMB an ideal candidate for exploring shared energy services such as aggregated PV and ground source heat pump loops. For example, they are exploring solutions for replacing the gas-fired boiler with a
heat pump arrangement that could take advantage of the recently secured heat extraction rights from a nearby groundwater source and recovering heat rejected by the chiller plant pipes.

While not a challenge requirement, participants are encouraged to consider load sharing strategies between buildings and articulate these strategies at the whole campus level in the design documentation.

CSU MB considers the University of California, Santa Barbara Recreation Center to be an inspiration for this project:  

About California State University Monterey Bay :

California State University, Monterey Bay (CSUMB) is a public university of the 23-campus California State University system, located in Marina and Seaside, in Monterey County, California. It is on the site of the former U.S. Army base Fort Ord in the northern Central Coast of California region. The shores of Monterey Bay are just one mile from the campus. Parts of the campus also have extraordinary views of the Pacific Ocean.

The University has currently about 7600 students. The Leon Panetta Institute for Public Policy (named for the former U.S. Representative and former Secretary of Defense) is located on the campus.

History:

California State University, Monterey Bay opened on the Fort's former ground shortly after Fort Ord's closing in 1994 as part of 42nd US President Bill Clinton's "peace dividends" program. The Fort Ord Reuse Authority (FORA) is responsible for the oversight of Monterey Bay area economic recovery from the closure of and reuse planning of the former Fort Ord. The military base was located on the California coastline near the Monterey Peninsula, consisting of 28,000 acres (44 sq mi; 11,000 ha) of land. FORA implements this legislatively mandated mission by overseeing replacement land use; assuring compliance with adopted measures; removing physical barriers to reuse; financing and constructing major components of the required infrastructure and basewide demands; and protecting identified environmental reserves. FORA exercises its planning, financing, and monitoring responsibilities under state law authority to meet these objectives in the best interest of the northern Monterey Bay community.

Helpful links and additional information:

CSUMB draft Master Plan - specifically the design themes chapter.  
Living Community Challenge  
Kinesiology Program  
Outdoor Recreation