

09.01.16-17:28 **Association for the Advancement of Sustainability in Higher Education**
2401 Walnut Street, Suite 102
Philadelphia, PA 19103

RE: UA Energy and Natural Resources 2 (ENR2) building
opened Fall 2015

DEAR AASHE STARS CERTIFICATION COMMITTEE: This is to verify the extraordinary sustainable practices advanced by the Energy and Natural Resources 2 (ENR2) building at the University of Arizona for the AASHE STARS program. Although I reviewed the project as a member of the UA Planning & Design Review Advisory Committee, and although I have repeatedly visited the project during construction and after completion, I have been entirely autonomous from the design, production, construction, commissioning, or operation of the building—yet, exceptionally familiar with the project. I am consequently in a good position to assess this project's accomplishments.

Of the four STARS criteria, supporting information in the application will certify the date of completion, the absence of a previous STARS credits, and the lack of previous STARS recognition at this institution for the particular innovation claimed here—leaving me to testify to the project's ground-breaking sustainability innovation.

PERFORMANCE ENR2 is an exceptional building by many criteria. It excels in key components of sustainable design: site location and design, energy and water efficiency, sustainable material selection, onsite resource management, as well as occupant health and wellbeing through indoor environmental quality. The building's recent certification as LEED-Platinum through the Leadership in Energy and Environmental Design (LEED) program offers evidence of its exceptional technical performance.

THE STARS CLAIM Although it has been awarded LEED's highest accolade, its real innovation lies in a critical sustainability component *not* measured by this rating system: it makes tangible and palpable its sustainable practices. Almost every aspect of the building's architectural character is drawn from its sustainable performance; the design renders the technical *characteristics* of the building *as character*. Because the occupant's experience of the building is entirely informed by the building's own symbiotic relationship the environment, **ENR2 is the most effective, compelling, and inescapable educational tool for teaching lived-sustainability at the University**. LEED-Platinum provides a demanding technical checklist; ENR2 presents a compelling and visionary new world.

WATER The building offers a narrative of the particular and relentless demands of the Sonoran Desert. Its catchment system not only collects rain, but uses our regional cycle of water scarcity—punctuated by biannual monsoons—to stage a dramatic celebration of seasonal



and ritual cleansing. Rather than providing, but concealing, a system of gutters and downspouts that funnel the precious fluid to underground cisterns, ENR2 celebrates the arrival of rain in the desert by channeling water through seven stories of connected planters, each becoming a spillway that sluices the water to a lower level. ENR2 mounts a ceremonial sound and visual ritual to which visitors from around campus and the surrounding community flock during storms. After cascading through the building, the water seeps through a rain filtration system at the base of the courtyard and is saved.

ENERGY AND CLIMATE The building is carefully tuned to the Sonoran Desert's diurnal temperature swings that vary as much as fifty degrees in a 12-hour period. Drawing design principles from Arizona's naturally formed slot canyons, ENR2 sets up a microclimate in its unusually narrow and sinuous cloister. The relationship between the building-mass and this curling outdoor space leverages thermal mass, self-shading, and evapotranspiration to create a significantly cooler, yet mechanically unconditioned, zone than is more comfortable than even the legendary courtyards of indigenous Southwest architecture.

HEALTH + WELLBEING Into this slot have been placed social, study, meeting, and lobby areas, along with much of the building's vertical and horizontal circulation. Sculptural, almost vertiginous, stairways clamor up the canyon; elevators are hidden away. Conditioned space is thus minimized (maximizing energy savings) and inhabitants are drawn unwittingly to exercise by climbing stairs (from which they experience the dramatically unorthodox canyon)—rather than riding elevators.

COMMUNITY COHESION The cloister also builds community. Its celebration of the rites of nature draws visitors; its drama makes its occupants want to look and explore. Its visual choreography links across, and between, all levels, effectively connecting the many academic disciplines housed here, not by edict, but by fostering delight and curiosity.

ENR2 offers an **important innovation** in sustainable architecture: it teaches us that sustainability should go beyond technical performance; that it can be *environmentally performative*. By making sustainability palpable, it educates its occupants through clear, concrete, and inspired lessons just how humanity should synthesize its presence, and its language of building, with the natural world. This is an exemplary accomplishment that is critical to this University and important to the continued maturation of sustainable architecture.

A handwritten signature in black ink, consisting of a large, stylized 'R' followed by a series of loops and a horizontal line ending in a double vertical stroke.

SINCERELY **Robert Miller, Architect**
Professor; Director, School of Architecture
AIA Arizona Board