Oklahoma State University
Donald W. Reynolds Architecture Building
Stillwater, Oklahoma

DESIGN ARCHITECT
OSU SCHOOL OF ARCHITECTURE FACULTY TEAM, Stillwater, OK

ARCHITECT OF RECORD
STUDIO ARCHITECTURE, Oklahoma City, OK

CONTRACTOR
BOLDT CONSTRUCTION, Tulsa, OK

HISTORY

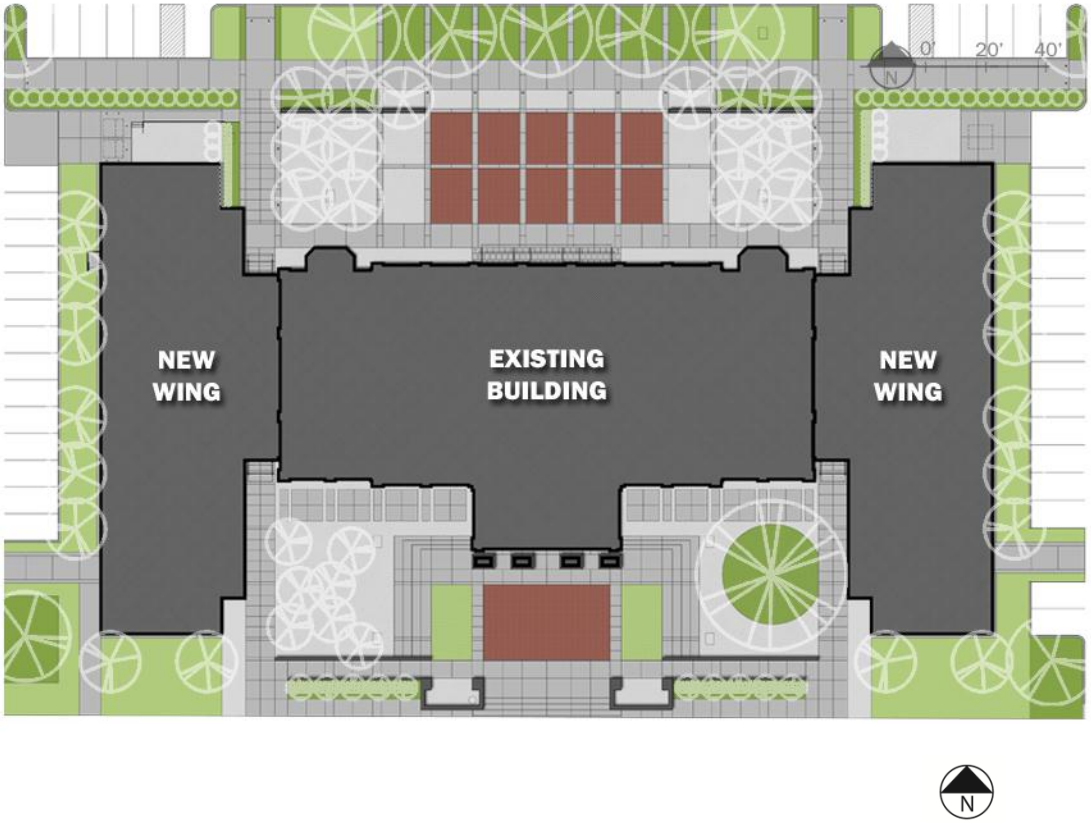
This new School of Architecture academic facility is a marriage of new and old, combining the renovation of a historic structure (the 1918 campus Gymnasium and Armory) with new wings which double the size of the existing facility.

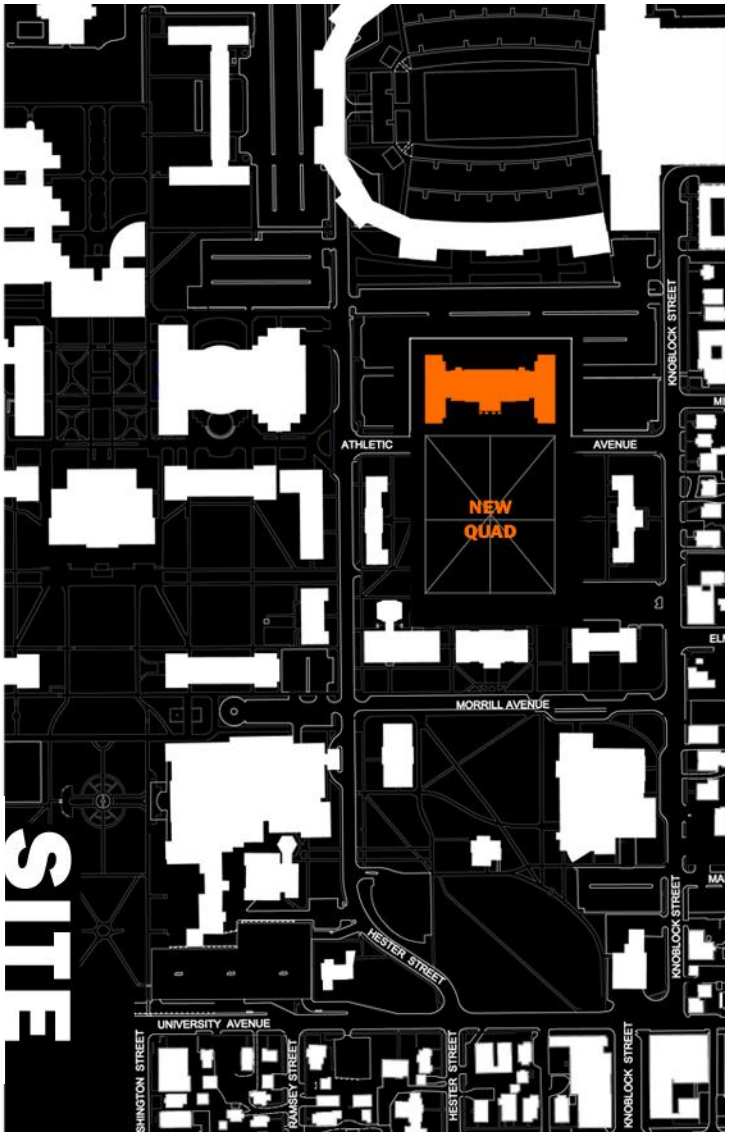
The site is in a historically sensitive context and the new construction, in the form of two new flanking wings added to the renovated existing building, is designed to respect and enrich the campus context by using common materials, sympathetic massing and plan configuration, and exterior fenestration similar in texture to the surroundings, while not attempting to mimic the historic architecture.

The massing of the two new wings brings focus to the historic south façade and portico of the existing building where the portico dominates the composition and is re-established as the main entry to the facility.

CONTEXT

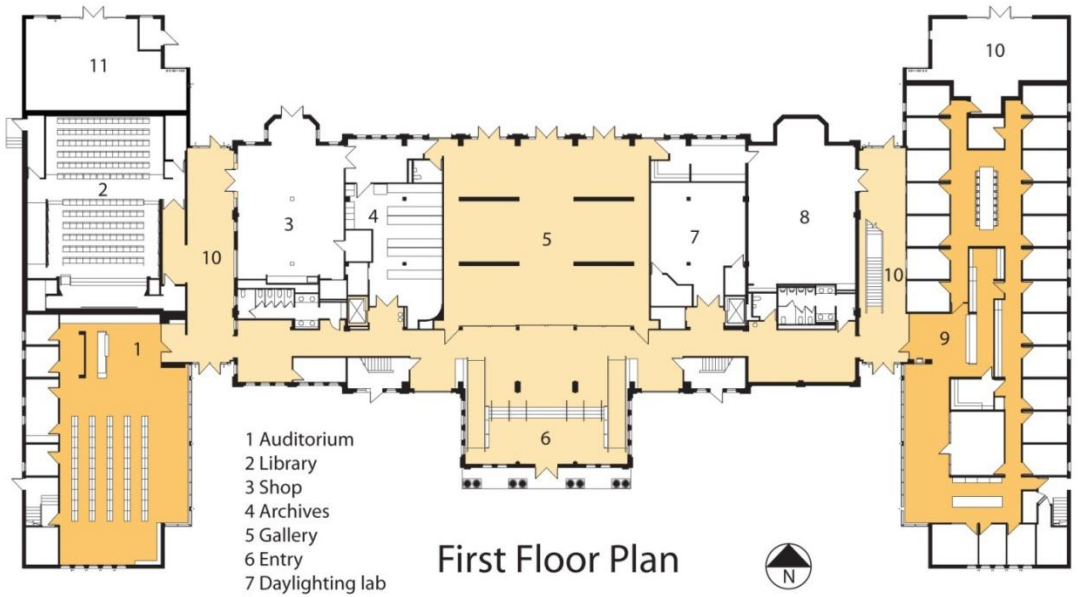
The massing of the new wings form courtyard spaces on the north and south of the building which create a visual focus on the historic existing building and accommodates expanded educational use. The courtyard facades of the new construction are mostly glass, connecting the academic functions with the courtyards, while the “campus” facades of the new construction are more solid and relate to the context through use of materials, scale, and articulation.



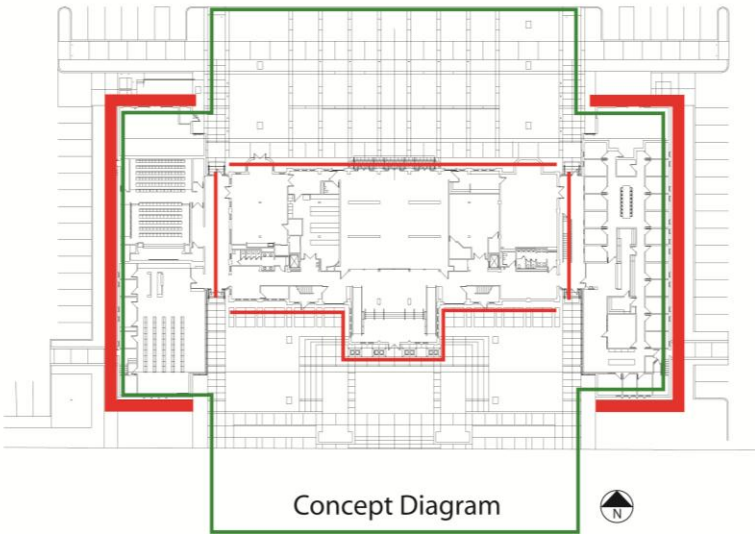


SITE

The building design looks past its immediate site, helping implement the new campus master plan which calls for a future new (green) quadrangle space to the south. This new quadrangle allows for the possibility of new academic buildings, where the historic facade and courtyard of the new building anchors one side of the space. The vehicular street on the south will close and become a pedestrian like connecting into the fabric of campus. The new facility is also designed as a gateway from the athletic side of campus on the north into the academic community.



BUILDING STATISTICS:
NEW SF: 40,000
RENOVATED SF: 32,000 SF
TOTAL COST: $20,700,000

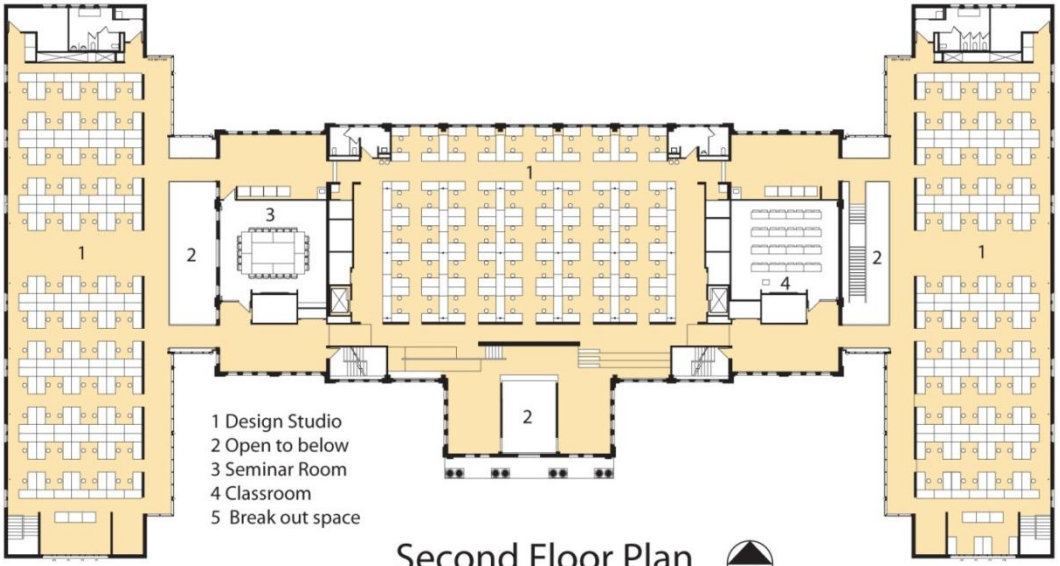


FUNCTION

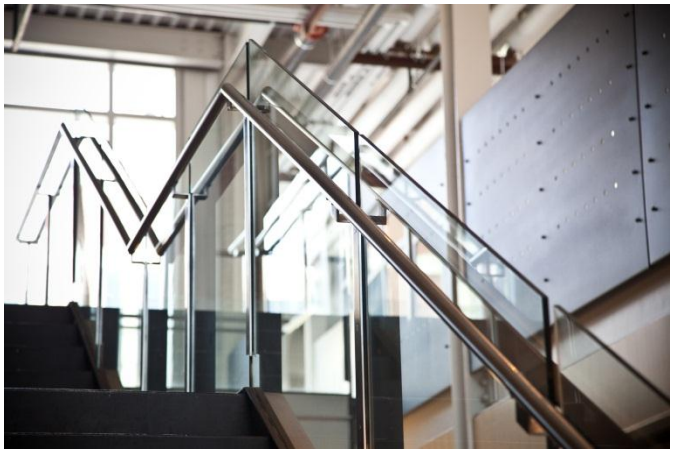
Functionally the building is zoned with all “public” spaces located on the ground level and studios and studio support spaces on the second and third levels. The existing building was completely gutted and renovated, and a strong entry axis was created on the first floor towards the north through an open, flexible gallery which is terminated by the north courtyard. A secondary east/west axis is punctuated by light from the glass links separating the wings from the existing building. The entry space is expanded vertically by carving a volume of space through the building to the second level along the south façade. Administration is located on the ground level of the east wing and an auditorium and the architecture library in the west wing. The library and administrative areas are strongly linked to the adjacent courtyard space.

CONCEPT

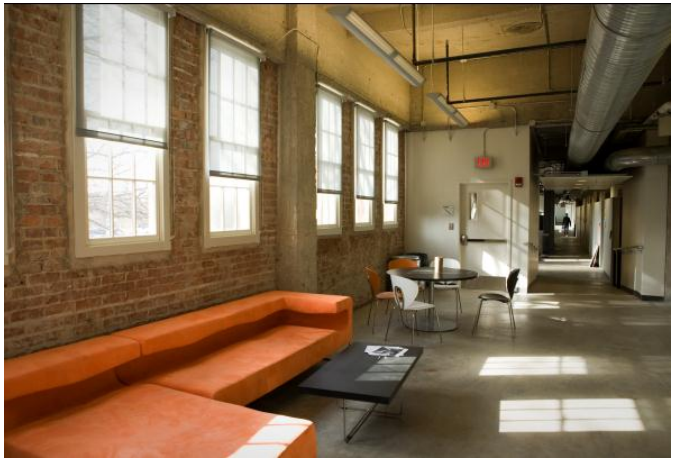
The new wings are wrapped on three sides with a contemporary facade (thick red lines) which is designed to relate closely to the scale, materiality, texture and proportions of the existing Neo-Georgian campus architecture, while keeping its integrity as a building of its time. The inner complex (green line) doesn’t attempt to relate directly to campus context, but instead to the functional arrangements of spaces and the desire for open courtyard views and direct light. Its space is somewhat ambiguous, joining interior and exterior through layered glass facades. The existing armory is “contained” within the space of the inner complex. “Soft” edges at the north and south reach out to the broader campus spaces.

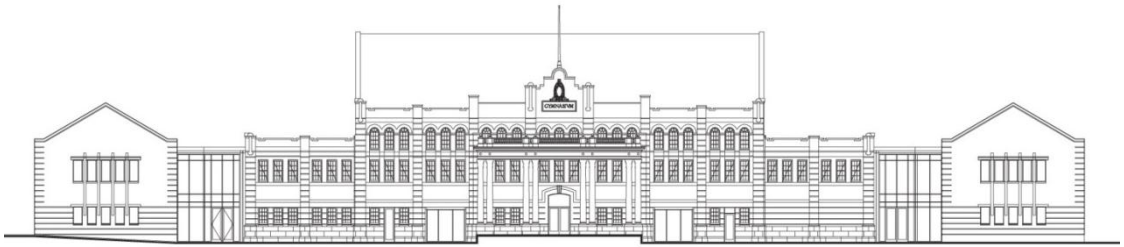


Second Floor Plan

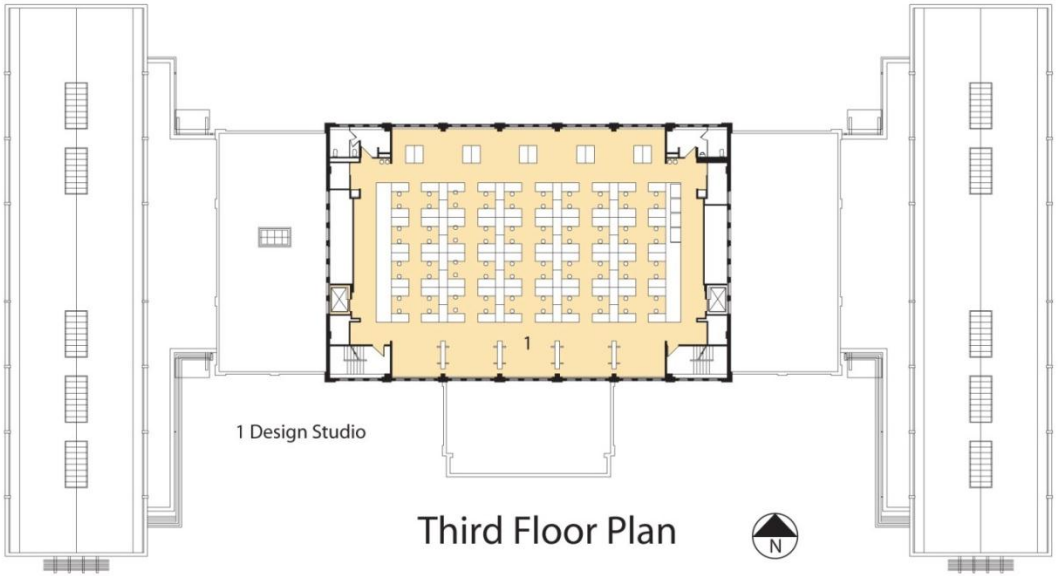


The second floor is primarily studio space with two large studios in the new east and west wings and a large central studio in the existing renovated building. Many informal spaces are provided for break-out (right bottom), critiques, small presentations, lectures, and seminars (right middle).

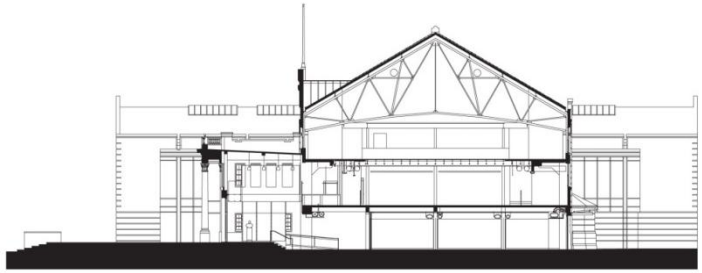




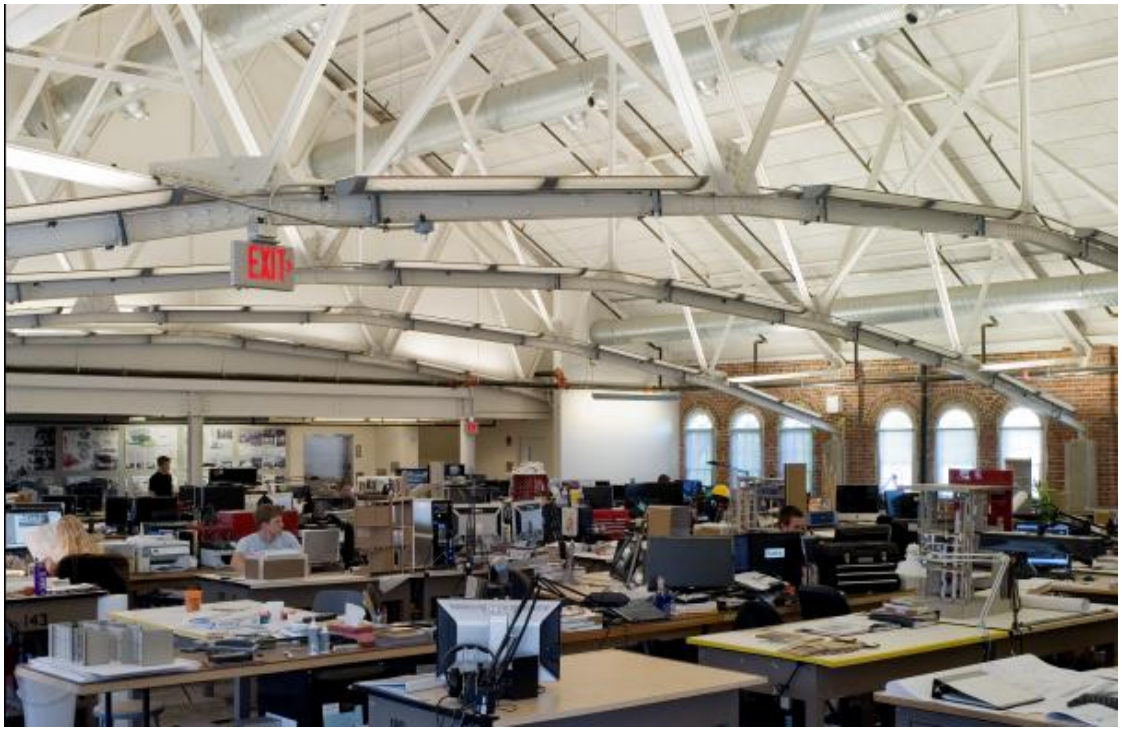
South Elevation



Third Floor Plan



East - West Section thru Existing Building



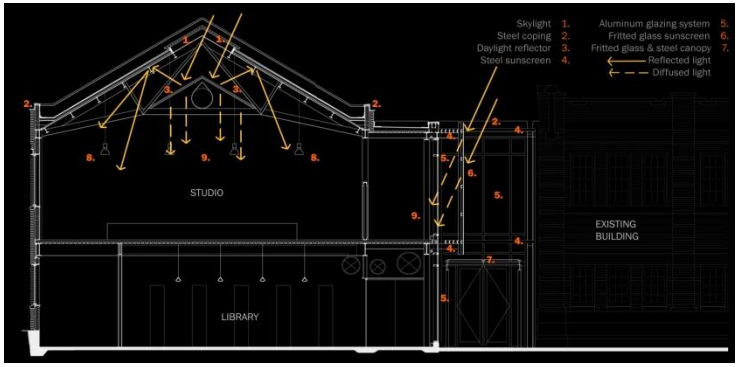
The third floor studio spatially opens to the exposed truss work of the old gymnasium (photo left).

MASSING

New two story wings flank the existing building to the east and west, separated from the existing by glass links.

SUN CONTROL

The glass courtyard facades are protected from the sun by a lacy metal and fritted glass double curtain wall screening system and by new and existing trees. This screening system, in combination with a strategic daylighting system in the studios, effectively transmits light into the building while mitigating heat gain.



new second floor design studio

DAYLIGHTING

Daylighting is a critical component of the design of the facility. Careful study of this issue was done by a team of experts, utilizing a daylighting lab and both physical and digital test models to accurately predict performance. Natural daylighting and glare control were particularly important issues in the design studio. Light filters into the studios from skylights and controlled openings on side walls. Control of direct light through shading devices is carefully conceived. The studios were designed to use only natural light during the day with an optimum and consistent lighting level provided at desk height throughout the studio. Further, studio spaces are carefully designed to reflect the school's "team-teaching approach" and "open studio" philosophy. The space of the studios with exposed steel trusses and exposed systems relate strongly to the use of systems throughout the building.

gallery

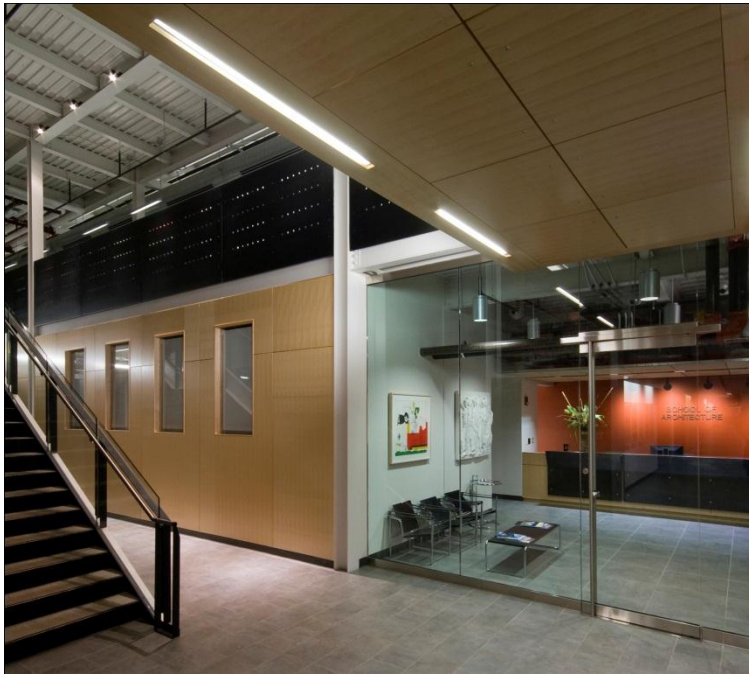
TECHNOLOGY

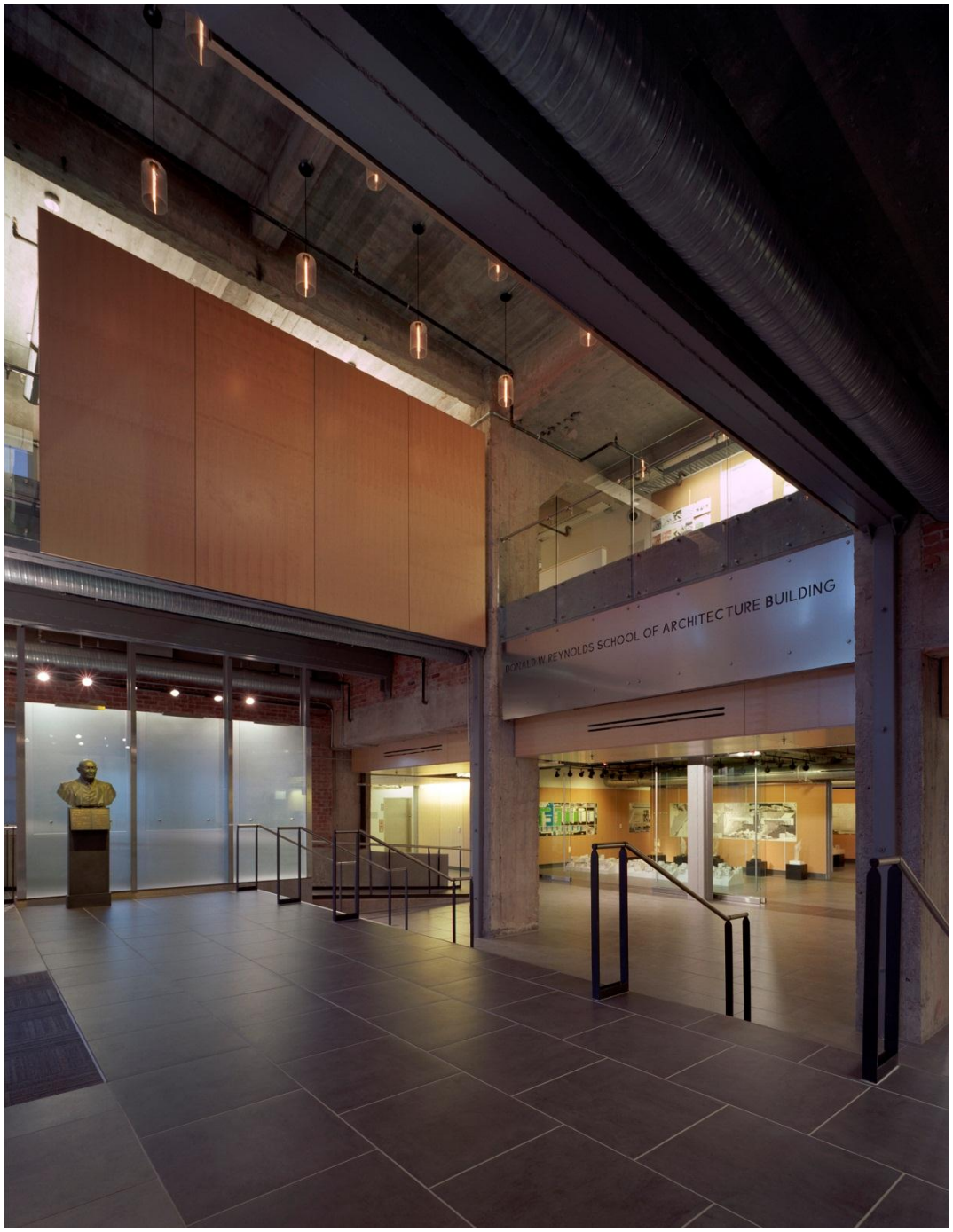
In addition to a 32-seat classroom, a seminar room, and a state of the art “artificial sky” daylighting lab, a new 40-station computer lab is provided. The computer lab (right), located in the former swimming pool, highlights the building’s concept of stripping the existing structure to its raw materials and leaving it as a visible history of its construction. The insertion of new materials and systems complements both old and new, and these construction and building systems are exposed for both aesthetic and academic purposes.

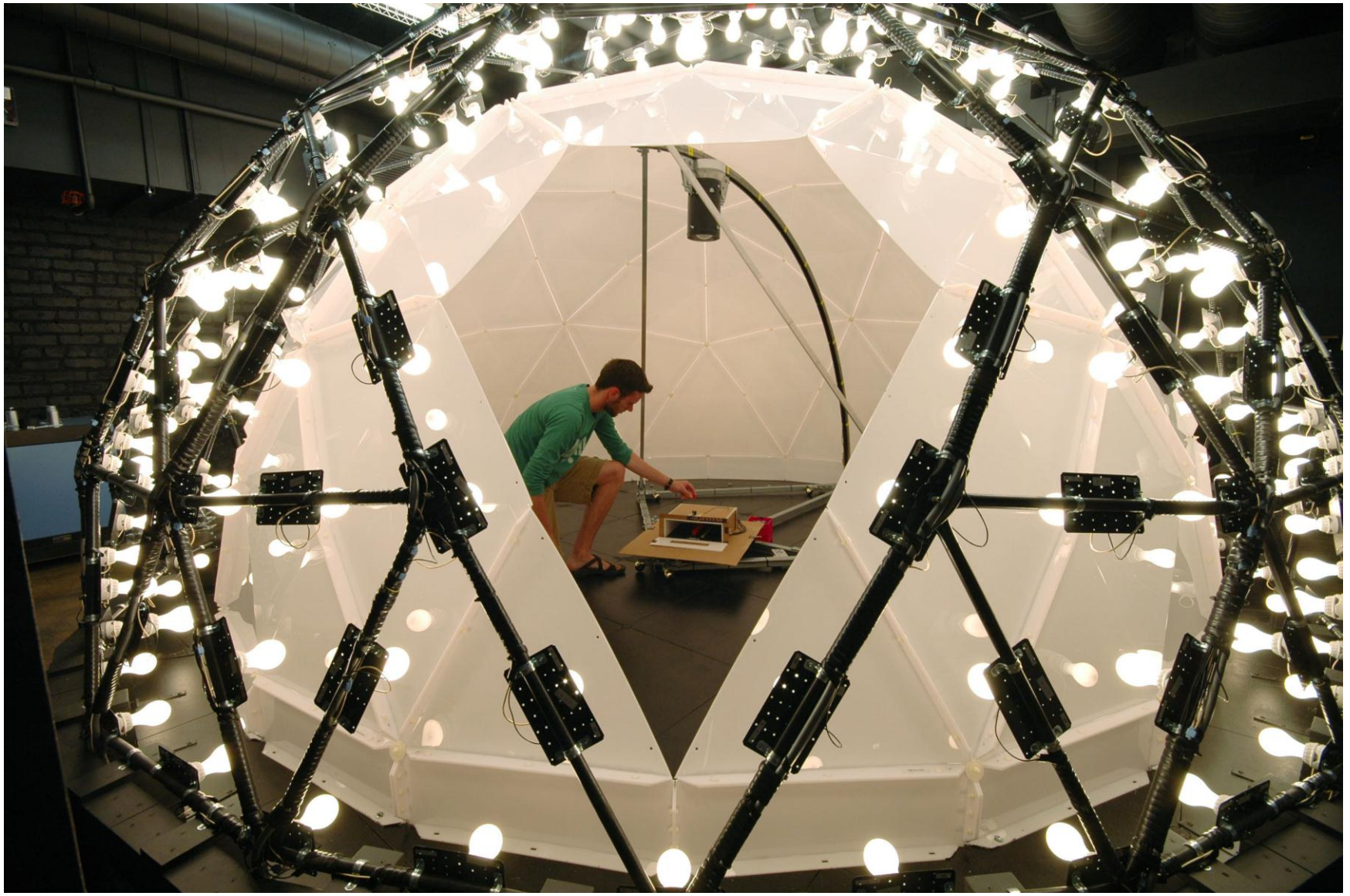
MATERIALITY

Perhaps the most visible sustainable feature of the new facility is the incorporation of the existing building in the new facility, highlighting the strong commitment to preserving our architectural heritage through the reuse of existing buildings. Materials were chosen with sustainability issues in mind, but also to create a warm atmosphere which encourages interaction. The existing building was stripped to it's raw materials, concrete and masonry, and left exposed with careful insertion of new materials (wood, steel, and glass) within. The entry (right) highlights the meeting of new and old, with each maintaining its own integrity.

The administrative area (below) is located at the end of the first floor east west access with the entry in the link separating the existing building from the new east wing.







DAYLIGHTING LAB

The School's innovative artificial sky daylighting lab allows students to test their designs against energy criteria. In 2013, a digital fabrication lab will be installed and will include a 3 axis CNC machine, two laser cutters, two 3d printers, and a 3d scanner. The school also maintains a construction lab.