Program Summary:
Renovate an existing University science museum into flexible STEAM classroom space for use by both the University and the campus Laboratory School.

Program Statement:
University's College of Education sought to renovate the former science museum into a multifunctional, flexible STEAM learning space designed for 21st-century education. The approximately 50' x 70' space was reimagined into two main rooms, separated by a 30-foot-long x 10-foot-high moveable glass wall. These rooms serve daily as Science and Math classrooms for the campus's Laboratory School. They are also used by the University for STEAM related events, seminars, professional development, and receptions.

The design intentionally integrated all aspects of STEAM: Science, Technology, Engineering, Art, and Math. Science is represented not only in its function as a Science classroom, but also by the concept of "exploding molecules" as expressed in the wall art and ceiling clouds. Technology is integrated throughout the room with interactive boards and hardwired data connections. Exposed beams, columns, and ductwork emphasize Engineering in the space. Art and Math are represented in the geometrical designs of the acoustical wall panels, ceiling clouds, and ceiling grids. Additional STEAM concepts are shown in the floor pattern at the moveable wall, which depicts a city skyline. Exposed ductwork and lighting draw the children's attention upward, sparking curiosity. Each design element is not only functional but also serves as a visual and educational tool to reinforce STEAM principles.

SP-80.01

Building Area: (sf)
3,500 square feet

Cost per Square Foot:
$174/sq ft

Construction Cost
$605,700

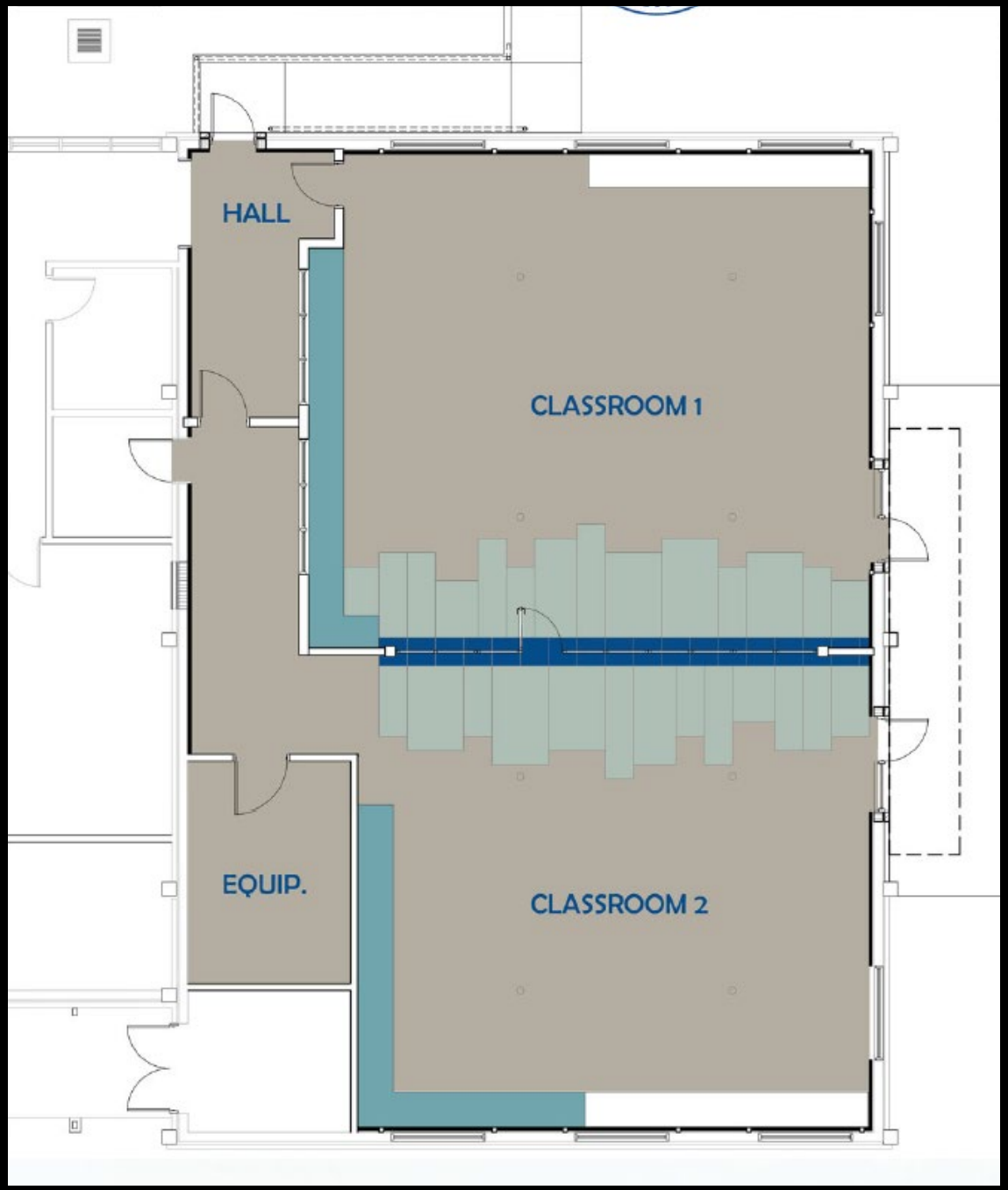
Date of Completion:
March 2020

SP-80.02

Classroom 1 looking West

The large volume of the room was divided into two main classroom spaces, with new openings added to introduce natural light and to help open the previous “box-like” feel of the space.

Maximum flexibility was a key program objective. Multifunctional elements were incorporated into the design, including marker board storage cabinets, moveable furniture, and wall treatments that double as acoustical panels and tackboards.



SP-80.03

Floor plan

The large open volume was reconfigured into two classroom spaces, separated by a moveable glass wall. Perimeter storage was incorporated into each classroom to meet the program's needs. Observation windows were placed in the hallway, allowing University classes to observe classroom instruction. New entries and exits were added to the space to improve circulation.

SP-80.04

During construction looking West.

Originally designed as an auxiliary gymnasium, the space was later transformed into a science museum, during which time large murals were added to the walls.

Taken during construction, this slide shows the existing ceiling structure, original wall murals, and the removal of the old wood gymnasium flooring, prior to any openings made to the perimeter.

SP-80.05

Classroom 1 Looking Northwest

By opening the moveable wall, groups can move seamlessly between the two spaces.

SP-80.06

South and West Exteriors

Bringing daylight into the former gymnasium was a key design goal. With limited wall space for instruction and storage, horizontal windows were strategically added above equipment at perimeter walls. This location allows natural light to enter while preserving functional wall space and minimizing heat gain.

To further enhance daylighting, new storefront entry systems were added along the South façade, introducing additional natural light into the space.

SP-80.07

South and East Exteriors

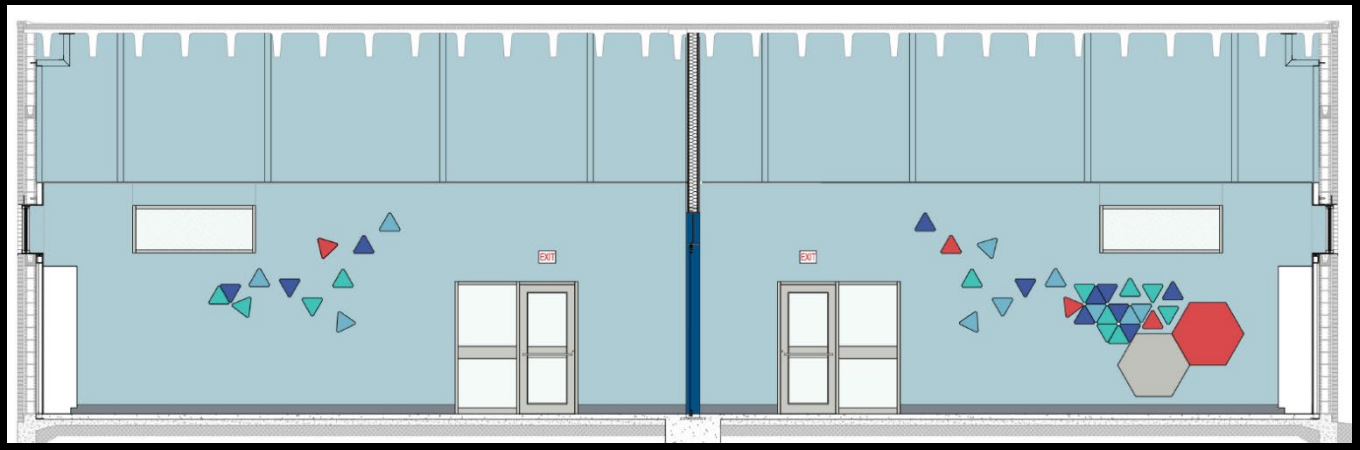
SP-80.08

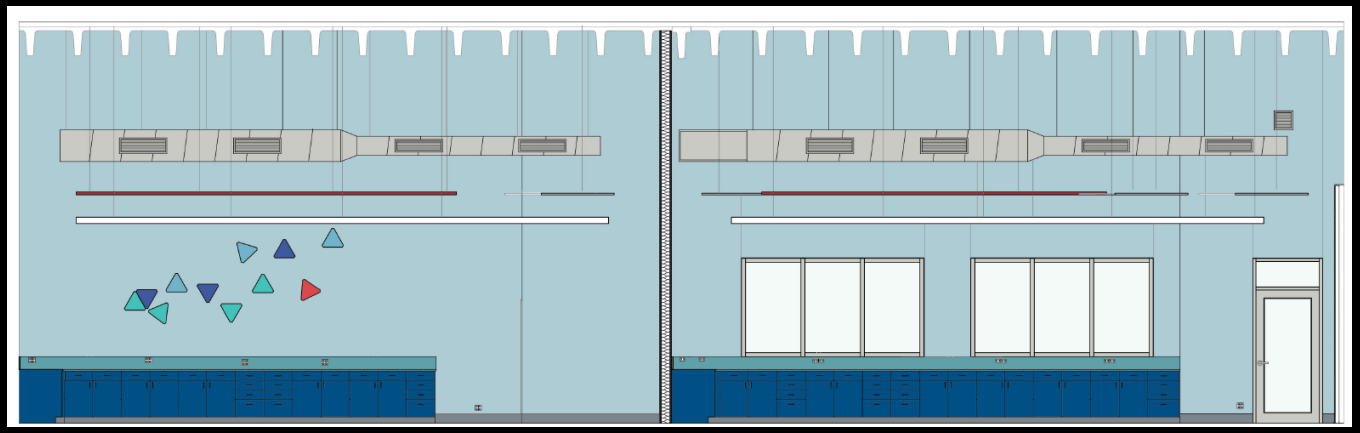
South and West Exteriors

Prior to the renovation, the exterior (and interior) was a dark masonry box.

SP-80.09

Southwest looking Northeast.





SP-80.10

Interior Section Renderings

The ceiling was left open, revealing the existing concrete double-tee structural deck to maintain height and to showcase another engineering element.

New openings were added to bring in natural light and create a more open space.

Acoustic panels and tackboards were arranged in an “exploding molecules” pattern, reinforcing the STEAM theme through both function and visual impact.

SP-80.11

Classroom 1 looking North

Observation windows into hall, exploding molecules wall treatment, ceiling clouds, and marker board clad storage.