

Marilee Lloyd, AIA

Principal Laboratory Architect

Ms. Lloyd has more than 24 years of experience managing and designing multifaceted projects for pharmaceutical buildings, vivaria, limited clinical laboratories and hospitals, science education facilities and commercial/retail spaces. Her expertise includes leading a client focused design team through the visioning, programmatic, and design phases. She has worked extensively in the renovation of existing buildings, integrating new construction into a complete whole. Marilee is passionate about integrating the science requirements and thoughtfully designed architecture. Outside of her science and research background, she has also lectured on the history of architecture.

Ms. Lloyd's background includes both teaching and research spaces in a range of higher education projects. She has participated in PKAL sessions, developing an understanding of changing teaching pedagogy for STEM education. Her focus is both one science- research and teaching spaces, but also on the collateral spaces – fostering interdisciplinary collaboration, student/faculty/researcher interactions and productive, vital learning and research spaces. She brings an energetic presence to the IDCA collaborative process.

Relevant Experience

ChemaWEyaat — Abu Dhabi

Programming and conceptual architectural design services conceptual layout including lab planning and equipment/ lab fit up specifications to support the design of a 10,000 square meter (sm) testing facility at a petroleum plant.

Boehringer Ingelheim Pharmaceutical—Shanghai, China

Conceptual Architectural design services to support the design of an 8042 sm Vivarium (ABSL 2 and 3) facility (project still in process) on an existing campus.

Confidential Client — Research Triangle Park, Durham, North Carolina

Programming, concept development and lab planning in a hyper-track project. 180,000sf of lab space designed including contract documents in aggressive 12 week schedule.

GAF Material Corporation—Cedar City, Utah

Architectural design services to support a preliminary engineering study, including programming, code, zoning reviews and scope development.

Education

B. Arch., Ball State University

Registrations and Certifications

Registered Architect in Michigan

Organizations and Affiliations

American institute of Architects (AIA)

NCARB

Learning Spaces Collaboratory - Project Kaleidoscope (PKAL)

Covidien—North Haven, Connecticut

Architectural planning and design to support the complete redesign of an EtO sterilizer plant. 12,000 sf of construction including two large (approximately 20' X 30') EtO sterilizers and a research sterilizer.

Industrial Scientific Corporation—Pittsburgh, Pennsylvania

Provided architectural design for a 330,000 SF corporate headquarters; Phase 1 involved 170,000 SF including 70,000 SF of light manufacturing space, 80,000 SF of offices, and 20,000 SF for lab/flex areas, as well as full site development of the greenfield site.

Bayer MaterialScience—South Charleston, West Virginia / Pittsburgh, Pennsylvania

Provided architectural design for the relocation of processes and equipment (SCTC applications and process research) from the Building 2 machine area in West Virginia to the Pittsburgh campus.

***Pfizer Pharmaceutical—Plymouth, Michigan**

Project program called for the relocation and expansion of Global R&D Discovery research facilities. The project team produced multiple scenarios for program placement. The project included robotics areas and dry/wet laboratories for discovery and research laboratories in addition to offices and meeting areas totaling 30,000 SF. Services included lab planning and programmatic scenarios; the facility was not built. Estimated construction cost was \$8 million.

***Pfizer Pharmaceutical—Plymouth, Michigan**

Provided architectural design services. The project involved programming through construction administration and overall project management for vivaria and research laboratories, 6,000 to 23,000 SF.

***Pfizer Pharmaceutical—Ann Arbor, Michigan**

Provided architectural design services. The project involved programming through construction administration and overall project management for multiple fast-track lab projects. The labs were to be renovated and adapted for new research staff. The team was tasked with working closely with the researchers to understand their requirements and quickly producing documents for the construction team.

***Millennium Pharmaceuticals—Cambridge, Massachusetts**

Provided architectural design services. The project involved programming, design, and overall project management for programmatic studies and basis of design documents for lab projects.

***Millennium Pharmaceuticals—Cambridge, Massachusetts**

Provided architectural design services. The project involved programming and lab planning services for a 70,000 SF research, imaging, and vivarium facility. It included 15,000 SF of imaging space and 10,000 SF of vivarium (small animal) research, equipment, support (cage wash, autoclave, etc.), and office areas. Construction cost was \$20 million.

***Confidential Client—Kalamazoo, Michigan**

Provided architectural design and lab planning services. The project involved programming, planning, and schematic design services for a 20,000 SF, ABSL-3 vivarium with research space for small animals (rodents). The client also expressed the desire to include the capability to have tours through various portions of the buildings for regulatory review and funding. This project was not built, and the construction cost was estimated to be \$9 million.

***Pfizer Pharmaceutical—Ann Arbor, Michigan**

Provided architectural design services. The project involved programming, planning, and schematic design services for a 23,000 SF, ABSL-3 vivarium for a small animal (rodent) housing area renovation. It was not built, and construction cost was estimated to be \$8.5 million.

***Pfizer Pharmaceutical—Ann Arbor, Michigan**

Provided architectural design services. The project involved programming, planning, schematic design, detail design, and construction documents for a 50,000 SF renovation of a vivarium and research lab building, including small animal (rodent; 7,000 SF ABSL-3) and research space (BSL-2; 36,000 SF). Construction cost was estimated to be \$15 million, and the project is not built.

***Confidential Client—Ann Arbor, Michigan**

Provided architectural design and lab planning services. The project involved programming through contract documentation and overall project management for a cGMP laboratory (scale-up facility) with 20,000 SF of research production space.

***University of Michigan—Ann Arbor, Michigan**

Led programming and planning, design, and documentation of projects, and managed project schedule and developed detailed project estimates. Scope included programming, design and production of multiple university science research projects. Research-based project types included biological, chemistry, and physics areas. Selected projects included: 7,000 SF biochemistry suite with wet research bench area, dry computational space, and write-up area and offices; 6,500 SF genetics research suite with radioactive research area, wet bench, cold room, equipment support space, and write-up area; and 100,000+ SF master plan for phased moves for research space in preparation for building demolition and new construction.

***Wayne State University—Detroit, Michigan**

Provided architectural services for programming and schematic design of a 300,000 SF medical science building including research lab areas, imaging, vivarium, translational, meeting, and interaction spaces.

***University of Michigan—Ann Arbor, Michigan**

Led programming through construction administration and overall science related design activities for an alternative energy research laboratory. The principal investigator's research centered on hydrogen fuel prototype engines.

University of North Carolina—Chapel Hill, North Carolina

Provided laboratory planning services for a building renovation of 10,000 SF of vivarium and research lab space, including large animal housing and research space (BSL-2). The project included programming, planning, and schematic and detail design. Construction cost was \$8.5 million.

***Albright College—Reading, Pennsylvania**

Provided architectural and laboratory planning services. The project included programming through construction administration for a 60,000 SF addition and 60,000 SF renovation of a liberal arts college science building. The project involved faculty research, teaching, office, and interaction spaces. Teaching and research spaces included biology, chemistry, psychology, and physics areas. The work in the building was phased to facilitate the use of swing space created by the addition.

***University of Michigan—Ann Arbor, Michigan**

Led planning, design, and documentation of projects. Managed project schedule and developed detailed project estimates for projects. Scope included programming, design and production of multiple university projects. Project types included research lab, office, conference and classroom spaces. Educational space projects included phased multiple classroom renovations to the School of Public Health and a conceptual renovation of an existing 20,000 SF building for social research teaching programs.

***Eastern Michigan University—Ypsilanti, Michigan**

Provided architectural services from initial programming through construction administration for a 180,000 SF renovation and 70,000 SF addition to a science building, creating a University Science Complex, including teaching labs, classrooms, research, and interaction spaces for biology, chemistry, psychology, physics, and geography/geology departments. The addition to the building was built first to establish needed swing space for the project. The existing building renovation occurred in two major phases (three floors each) in order to accommodate scheduling needs and to match the size of the created swing space for teaching and research laboratories.

***Pattengill Middle School—Ann Arbor, Michigan**

Provided architectural services from initial programming through construction administration for a 70,000 SF renovation and 30,000 SF addition to a 1950s vintage, mid-century modern middle school, including teaching and interactive media center and library, classrooms, music rooms, and auditorium/cafeteria.

***University of Michigan—Ann Arbor, Michigan**

Led planning, design, and documentation of projects. Managed project schedule and developed detailed project estimates for projects. The scope involved programming, design and production of multiple university projects. Project types include research lab, office, conference and classroom spaces. Administrative projects included a phased renovation of a 10-story office building housing University Human Resource, Development, and Finance Departments. The complex also included a series of meeting and training rooms for university personnel. Additional administrative space projects are a 17,000 SF renovation of existing loft and storage area to support Campus Safety Services and an adjacent 8,000 SF renovation to provide a multipurpose flexible conferencing and training center.

***First of America Bank—Ann Arbor, Michigan**

Provided architectural services for the renovation of a 12,000 SF existing banking and administrative space to provide a new private banking suite. The project included schematic design through construction administration.

**In association with another firm*

Publications and Presentations

Lloyd, Marilee. 2013. *Learning Environments 2013*, “The Spaces Between – Learning in Collateral Spaces”

Lloyd, Marilee. 2013. *Tradeline Space Strategies 2013*, “Increasing Collaboration and Space Utilization”