

LIFE SCIENCES

Empowering Life Sciences
with Engineering Innovations

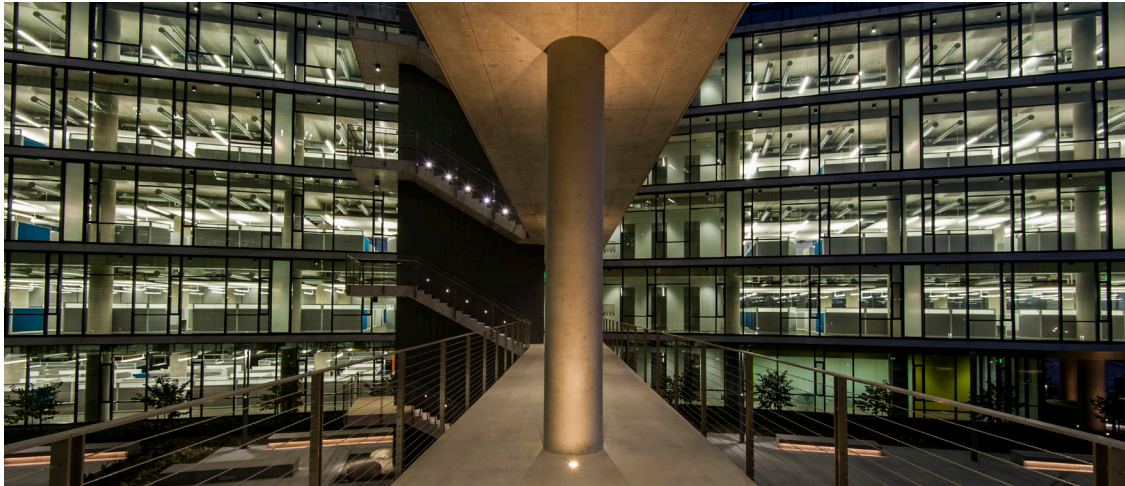


Michael Baker
INTERNATIONAL

ABOUT MICHAEL BAKER INTERNATIONAL

With decades of expertise in the life sciences industry, Michael Baker International stands at the forefront of designing state-of-the-art research laboratories. Our portfolio spans hundreds of academic laboratories for higher education institutions and private-sector research, development and manufacturing facilities. Our extensive experience underscores our commitment to advanced engineering and exceptional energy performance.

We understand the unique functional requirements of laboratory building systems and work closely with our clients to address their immediate needs while proactively considering future shifts driven by advancements in science and technology. Our facilities are designed to accommodate the evolving demand of the life sciences industry resulting in facilities that are both functional and sustainable.



KEY DIFFERENTIATORS



Comprehensive
MEP+ service
offerings



Local capabilities
leveraging
national expertise



Subject matter
experts in various
industry sectors



Strong relationship with
developers, owners,
contractors and architects

CAPABILITIES

Audio Visual

Commissioning & Retro-Commissioning

Cybersecurity

Data-Driven System Analysis & Design

Energy & Decarbonization Planning

Energy Auditing

Fire Protection

Life Cycle Cost Analysis

Lighting Design

Mechanical, Electrical & Plumbing (MEP)
Engineering

Microgrid Analysis & Design

Renewable Energy System Analysis &
Design

Smart Building Design

Structural Engineering

Surveillance Systems & Access Control

Sustainability & Resilience Consulting

Telecommunications

Voice & Data Systems

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Visit mbakerintl.com for more information.

BioLegend Headquarters



OWNER: BioLegend, Inc.

CLIENT: Krenek Design Group

LOCATION: San Diego, California

ROLE: Mechanical, Electrical, Plumbing

TOTAL PROJECT COST: \$140 million

OVERVIEW

This project converted an existing four-parcel plot of land into an 8-acre biotechnology campus. The campus has four buildings, including office and lab space, with approximately 250,000 square feet of outdoor amenities and a seven-story, 700-space parking garage. The project was named, "Best of the Best Projects" by Engineering News-Record and won the "Commercial Real Estate Awards" in the Industrial category by the San Diego Business Journal.

OUR WORK

Michael Baker provided comprehensive electrical, mechanical and plumbing construction documents for the relocation and expansion of BioLegend's headquarters. The project encompassed a range of systems, including variable refrigerant flow (VRF), heating, hot water, various central air handling systems, N2 gas piping, vacuum systems, compressed air systems, smoke evacuation systems and industrial cold and hot water systems.

The work involved new ground-up construction for a four-story building, renovations of existing office and laboratory spaces and the parking structure. The project included the installation of emergency power generation, lighting upgrades, lab function enhancements, office spaces, bottling, packing and packaging enhancements and storage functions.

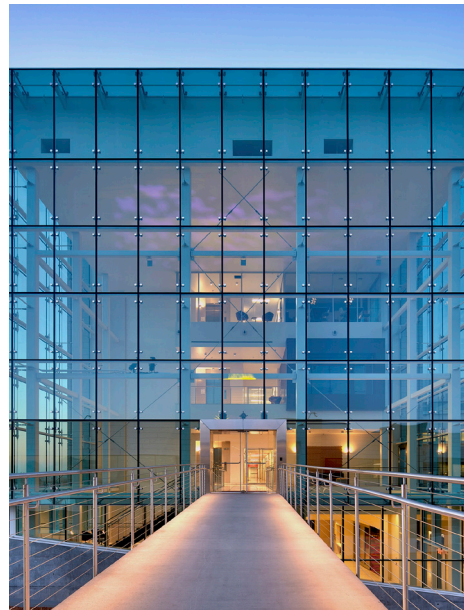


Photo courtesy of @Stephen Whalen Photography.

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We Make a Difference



Sorrento Gateway

OWNER: Healthpeak Properties

CLIENT: Delawie

LOCATION: San Diego, California

ROLE: Mechanical, Plumbing

TOTAL PROJECT COST: \$58 million

OVERVIEW

The 359,000-square-foot research and development building is comprised of lab and office space and over two-and-a-half levels of underground parking that includes space for electric vehicles and bicycles. The five-story building features dramatic views of Sorrento Valley overlooking the Pacific Ocean and the Torrey Pines neighborhood. The project included three new ground-up buildings and is part of Healthpeak's initiative to create high-quality, sustainable and resilient properties.

The Sorrento Gateway building utilized a variety of innovative design strategies to meet sustainability goals, including the use of electrochromic smart windows that automatically adjust tint based on sunlight levels to reduce heat gain. Sorrento Gateway was named "Project of the Year" for Sustainability by the San Diego Business Journal and is LEED Silver® Certified.

OUR WORK

Michael Baker provided mechanical and plumbing engineering and consulting services for the campus. The scope included warm shell mechanical and plumbing design for the five-story lab and office facility. In addition, full mechanical and plumbing design was provided for the café and fitness center.



Research Facilities Design – Academic Laboratories

OWNER: Research Facilities Design

CLIENT: Research Design Facilities

LOCATION: USA Nationwide; Qatar; India

ROLE: Electrical

TOTAL PROJECT COST: \$200+ million

OVERVIEW

For over 24 years, Michael Baker has partnered with Research Facilities Design (RFD) on academic laboratory projects throughout the United States, Qatar and India. The firm provides laboratory electrical engineering to complement RFD's laboratory architecture and mechanical engineering services.

OUR WORK

Michael Baker has provided electrical construction documents for over 200 academic laboratory projects for Research Facilities Design. These projects represent over 5 million square feet of laboratory and support space at over 150 higher education campuses.



Dart Neuroscience Research and Development Center

OWNER: Wieland - Davco Corporation

LOCATION: San Diego, California

ROLE: Designer, Construction Administrator

OVERVIEW

The Dart Neuroscience Research and Development Center in San Diego, California, needed an upgrade. Dart Neuroscience, an organization dedicated to developing technologies and therapies to preserve life-long cognitive vitality, sought to add an emergency generator yard, trash enclosures and a new central plant area for their research and development center.

OUR WORK

To support the new additions to the Dart Neuroscience Research and Development Center, Michael Baker produced design development and construction documents and provided construction administration services. The design included a bioretention swale on the research and development center grounds.





New Life Sciences Building

CLIENT: West Virginia University

LOCATION: Morgantown, West Virginia

ROLE: Owner's Representative

TOTAL PROJECT COST: \$49 million

OVERVIEW

The new 190,000-square-foot Life Sciences Building is home to the Biology and Psychology Departments, the Quin Curtis Center and an Animal Facility group to support research. Key components of the \$49 million facility include 29 teaching and research labs, 10 holding rooms for research animals, six greenhouses on rooftop with temperature and humidity controls, a 265-person capacity auditorium, a 125-person capacity lecture hall and four classrooms.

Multi-level entrances helped encourage and enhance the flow of pedestrian traffic from the adjacent neighborhood while defining the northern border of the campus. The structure's facade incorporates both traditional and innovative building materials, using brick to match the nearby Woodburn Hall and pre-painted copper soffit and siding with matching frit glass to project a modern yet timeless high-tech facility.

OUR WORK

Michael Baker was responsible for the university's buildings program which included providing full-time, on-site owner representation to monitor the work of the design, contractor and construction management teams.



Tenant Improvements

OWNER: Confidential Client

LOCATION: La Jolla, California

ROLE: Civil Engineering, Construction Support

OVERVIEW

Tenant improvements for a major real estate client encompassed over 87,000 square feet of life science research facilities across two, two-story buildings. Located on 4.2-acres, the project involved the demolition of existing site improvements, shell and sitework modifications. The scope also included improvements to parking drive aisles, relocating a central plant and constructing a new amenities area. The project is LEED Silver® Certified.

OUR WORK

Michael Baker provided civil engineering and construction support services to the life science research facilities. Services included developing preliminary and final site grading and utility plans, demolition and erosion control plans, designs for a private storm drain, sewer and water system, drainage study, stormwater pollution prevention plan, water quality technical report, permitting, bid and construction phase support.





Lawrence Berkeley National Lab - Integrative Genomics Building

OWNER: Research Facilities Design

LOCATION: Berkeley, California

ROLE: Electrical

TOTAL PROJECT COST: \$91.5 million

OVERVIEW

The Lawrence Berkeley National Lab, managed by the University of California for the U.S. Department of Energy, features a new four-story building designed to house approximately 330 scientists and visitors. This facility has achieved LEED® Gold certification by integrating sustainability concepts into all aspects of its siting and design, including structural and mechanical elements. The design also incorporates computer-controlled systems for heating, ventilation and air conditioning (HVAC) and lighting, ensuring optimal energy efficiency. The lab is the recipient of The International Institute for Sustainable Laboratories (I2SL) Excellence in Decarbonization award and The Chicago Athenaeum Museum of Architecture and Design's GREEN GOOD DESIGN Award, Green Architecture.

OUR WORK

Michael Baker provided electrical engineering and consulting services for the four-story, 18,400-square-foot academic laboratory and lab support facility. This facility is part of the 82,600-square-foot Lawrence Berkeley National Lab Integrative Genomics Building, which accommodates two Department of Energy Research programs: The Joint Genome Institute and the Systems Biology Knowledgebase. These programs benefit from the building's cutting-edge infrastructure, which includes high-efficiency HVAC systems, solar hot water heating panels and a centralized heating and plumbing network.

San Diego - Public Health Laboratory

OWNER: Steinberg Hart

LOCATION: San Diego, California

ROLE: Electrical

TOTAL PROJECT COST: \$93 million

OVERVIEW

San Diego County embarked on a bold initiative with this \$93 million, cutting-edge public health laboratory at the County Operations Centers in Kearny Mesa. The project replaces the current outdated facility with a modern, 52,000-square-foot, two-story building. Designed to improve testing for infectious diseases, monitor food and water safety and detect dangerous pathogens, the new laboratory will feature advanced technologies like whole genome sequencing and tuberculosis diagnostics.

The facility will also serve as a regional hub for public health efforts, designated as the Centers for Disease Control and Prevention (CDC) laboratory for San Diego and Imperial Counties, and will operate as a training center for public health microbiologists and hospital partners. This building is one of the very first all-electric labs in California and includes a Biosafety Level 3 (BSL-3) research suite.

OUR WORK

Michael Baker provided electrical engineering services for the new 52,000-square-foot, two-story building.



Photo courtesy of Steinberg Hart

CONTACT

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WITH DECADES OF EXPERTISE IN THE LIFE SCIENCES INDUSTRY, WE EXCEL DESIGNING STATE-OF-THE-ART RESEARCH LABORATORIES THAT ARE BOTH FUNCTIONAL AND SUSTAINABLE, ADDRESSING IMMEDIATE NEEDS WHILE ANTICIPATING FUTURE ADVANCEMENTS IN SCIENCE AND TECHNOLOGY.

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