Peter Basso Associates Inc.
CONSULTING ENGINEERS

MEP Engineering Design for Healthcare Facilities

Your Partner in Engineering the Right Building Environment

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RELIABILITY

As a mechanical and electrical engineering only firm, Peter Basso Associates (PBA) works with a variety of architects from around the country on exciting and challenging projects, primarily in the healthcare, education and commercial markets. PBA's staff specializes in the MEP design of healing environments ranging from one-room renovations to multi-story critical care towers.

SPECIALIZED EXPERTISE

PBA has provided mechanical and electrical engineering services for over 1,000 healthcare projects including hospitals, ambulatory surgery centers, medical office buildings, pharmacies, CT scan and MRI suites, critical care units, cancer centers, operating rooms, emergency rooms, cardiac cath labs, and medical research labs.

Engineering infrastructure is a critical element of healthcare facility design; they must provide a high level of occupant comfort and reliability. Special attention must be given to infection control, illumination levels and comfort levels for patients, caregivers and visitors. In addition, because of the competitive business environment in healthcare, every effort must be made to contain facility capital and operational costs, improve maintainability, and reduce energy costs.

PBA delivers specialized expertise in the design of:

- *Surgical areas:* Mechanical systems for surgical areas must help prevent infections while providing optimal temperature and humidity control for surgeons and their patients. Electrical systems must demonstrate utmost reliability to assure patient safety. Close coordination is required when planning the operating room ceiling to provide a controlled airflow pattern while accommodating lighting, monitors and other ceiling-mounted equipment.
- *Laboratory areas:* Laboratory design must maximize flexibility to accommodate ongoing changes to laboratory equipment. Systems must provide adequate electrical power and cooling, exhaust and make-up air for fume hoods, suitable controls to maintain room pressurization, safety systems to shut off gases and electricity, and specialized plumbing and piping systems.

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EXPERTISE

- *HVAC systems:* Regulatory agencies and occupants demand that stringent standards of air quality, temperature, humidity and pressure relationships be maintained to reduce the risk of airborne infections and promote comfort for patients and caregivers.

- *Back up systems:* Heating, cooling and emergency power systems must maintain the facility's critical functions during an extended power outage. This requires close coordination between the engineers and the facility's administrative staff and physical plant managers.

- *Medical gas systems:* Source equipment (vacuum pumps, medical air compressors and compressed gas systems) must be sized to meet the unique needs of each facility. Departmental users must be consulted to define requirements that go beyond state and national codes.

- *Central heating and cooling plants:* These cornerstone systems offer the greatest opportunity for major energy savings.

ENERGY EFFICIENT DESIGN

Our engineers and designers design projects with energy efficiency and sustainability at the forefront. We design not only for code compliance, but to meet or exceed ASHRAE (American Society of Heating, Refrigerating and Air Conditioning Engineers) 90.1 - Energy Standard for Buildings. We have completed several LEED certified healthcare and laboratory projects. This is often more challenging in the healthcare setting because of the large heating and cooling systems and equipment used in multi-story hospital buildings, along with other systems such as electrical substations and generators required to support the large power draw of operating rooms and diagnostic equipment. Still, we apply energy saving measures such as building automation systems, low-flow public plumbing fixtures and occupancy sensors to realize energy savings where practical.

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TRUSTED

Representative Healthcare Clients

- Banner Health System, Arizona
- Beaumont Health System
- Bell Memorial Hospital
- Detroit Medical Center
- Henry Ford Health System
- Hillsdale Hospital
- Indian Health Services, Arizona
- King Hussein Cancer Center, Amman, Jordan
- Marquette General Health System
- Mayo Clinic and Hospital, Arizona
- McLaren Health Care Corporation
- Michigan Medicine - University of Michigan
- MidMichigan Medical Center - Alpena
- Oakland Regional Hospital
- Otsego Memorial Hospital
- Trinity Health System
- Ascension Health System
- St. Mary Health System
- Sparrow Health System
- U.S. Department of Veterans Affairs

Contact Peter Basso Associates for insight into your commissioning needs

Peter Basso Associates, Inc. is Michigan's largest Consulting Mechanical and Electricals Engineering Firm and we have been hard at work achieving our national recognition as an industry leader and client collaborator for nearly three decades.

Your Engineering Partner Since 1990

When we started in 1990, providing engineering services, never could we have imagined today's ever-expanding suite of services – from mechanical, electrical and plumbing engineering, to Illuminart architectural lighting design, commissioning and retro-commissioning and so much more.

100% Employee Owned

Everyone you work with at Peter Basso Associates (PBA) has a vested interest in your project's positive outcome and a personal stake in the success of our firm. That's because our company has been employee-owned through an Employee Stock Ownership Plan since 2002.

Turning Projects Into Partnerships

At PBA, we value relationships – not just projects. We want to create environments that serve you by designing systems that allow people to heal, live, learn, work and play.

Nationally Recognized Experts

We excel at highly technical, challenging projects, and our in-depth knowledge of best practices extends across multiple markets. Recognized as a leader in MEP engineering, Peter Basso Associates is at the forefront of the application of new technology, balancing performance with cost. A 'PBA System' is one that focuses on cost-effective solutions that pay returns over the life of the facility.

PARTNER WITH US

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