HEALTHCARE EXPERIENCE

Successfully delivering tailored mechanical, electrical and plumbing solutions to clients across every type of healthcare project: from ground-up hospital builds to medical office building improvements and from ambulatory surgical centers to hazardous drug pharmacy laboratories.

Michael Baker
INTERNATIONAL

WHO WE ARE

Michael Baker International brings a passion to engineering, ensuring every client receives an exceptional, collaborative and communicative experience. By combining our passion with our team's global experience, Michael Baker listens, adapts and responds to the needs of our clients across a host of engineering disciplines.

Whether healthcare, data centers, multi-family, mixed-use, higher education, hospitality or industrial projects, Michael Baker ensures our clients' success by providing the right team of engineers for every project we complete. With collaborative and experienced engineers across mechanical, electrical, plumbing, structural, technology, fire protection and commissioning, Michael Baker brings the right team to every task for every need.






CAPABILITIES

- Mechanical Engineering
- Electrical Engineering
- Plumbing Engineering
- Structural Engineering
- Fire Protection
- Technology Design
- Commissioning
- Construction Administration
- Acoustic Design
- LEED Design
- Geotechnical Engineering
- Civil Engineering

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ENR TOP 500 DESIGN FIRMS

#27

YEARS IN BUSINESS

85+

OFFICES

120+

TOTAL EMPLOYEES

6,000+

We Make a Difference

EVERY STRUCTURE WE DESIGN BEGINS WITH QUALITY

Our Methodology

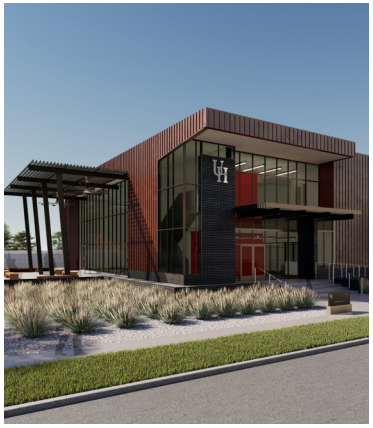
Building on a foundation valuing responsiveness, experience, innovation and laser-focus attention to detail, our methodology is an approach that encompasses all aspects of a job. From initial scope of work to regional codes and guidelines to the evolving needs of the clients we serve, we practice diligence in decision-making throughout every design phase.

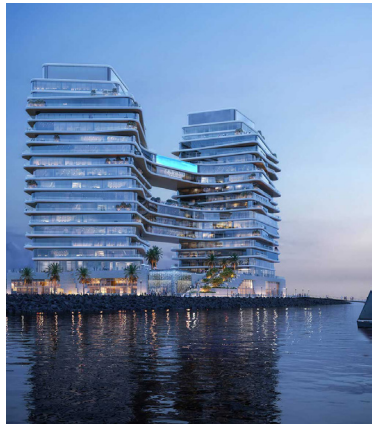
Bringing Information to Life

Understanding the details of a project within the context of the client's vision is how we deliver success. Such perception begins with a conversation involving key team members and stakeholders to discern owner requirements, functions, regional codes and specs, operational requirements and so much more. We use these conversations to ensure our work reflects the core values of our clients while delivering a structure that delivers a joyful and functional experience for its occupants.

Communication as a Practice

Communicating is the load-bearing practice that holds our projects together and steers them to successful completion with our clients. We know clear vision begins with open dialogue. From the first step when our senior team members hold a feasibility review of collected data and documents, through the project scoping process and initial queries, we communicate as we move our clients forward on the path to success.





Lyndon B. Johnson Hospital

CLIENT: Harris Health System
LOCATION: Houston, Texas
ROLE: Mechanical, Electrical, Plumbing and Fire Protection
COST: $1.5 billion

OVERVIEW

Michael Baker is delivering mechanical, electrical and plumbing (MEP) and fire protection design services for the new Lyndon B. Johnson Hospital–a 1.2 million-square-foot, 12-story, 600-bed facility that will serve as the new Trauma Hospital for the Harris Health System. The hospital complex includes a central utility plant (CUP) and a multistory, mixed-use parking structure.

OUR WORK

The CUP will include 9,000 tons of water-cooled chillers, cooling towers, condensing boilers and distribution pumps, with emergency power from a twin 2.5 MW diesel cogeneration system and up to four 2 MW natural gas generators. Medium voltage electrical service gears will be housed in the CUP vault, and sustainability is enhanced by heat recovery from chillers and cogeneration. The facility features a 200,000-gallon water tank and 48,000 gallons of diesel fuel storage, providing up to 72 hours of backup. The parking structure will offer an acre of urban garden space, a farmers market, event space and support for urban farming offices and retail areas.

KEY FEATURES

- Two 2.5 MW diesel cogenerators
- Four 2 MW Natgas generators
- 90,000-square-foot CUP
- 10,200V electrical service gears
- 200,000 gallon domestic water tank
- 48,000 gallon diesel storge tank
- 99 MMBtu condensing boilers
- 722,800-square-foot mix-use parking structure
- BSL3 isolation rooms
- Trauma center & helipad

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UT MD Anderson Consolidated Service Center

CLIENT: MD Anderson
LOCATION: Houston, Texas
ROLE: Mechanical, Electrical, Plumbing and Fire Protection
COST: $112 million

OVERVIEW

Michael Baker was engaged to support the construction of the new Consolidated Service Center (CSC) for MD Anderson Hospital, providing mechanical, electrical, plumbing (MEP) and technology designs in two phases. Located within the Texas Medical Center Campus in Houston, the CSC is a state-of-the-art, 380,000-square-foot facility designed to centralize essential hospital departments and streamline operations.

OUR WORK

The CSC enhances space utilization and operational efficiency by offering secure, temperature-controlled storage for hazardous materials, tissue and non-hazardous items and will house a pharmacy, sterile processing, clinical research departments and a full-service kitchen serving multiple MD Anderson facilities. Michael Baker also provided 3D energy modeling services for building geometry, HVAC systems and construction materials, enabling analysis and recommendations for energy-efficient systems that align with MD Anderson's design guidelines and support LEED Silver® certification.

KEY FEATURES

- Two 1 MW back-up generators
- 1,100-ton cooling capacity
- 600-ton chiller plant (Main)
- 500-ton DX (Warehouse / Kitchen)
- 5,000 AMP electrical service
- Hazmat chemical storage
- Redundant IT / telecom feeds
- 3D energy modeling

Reunion Rehabilitation Hospital

CLIENT: Reunion Rehabilitation Hospital
LOCATION: Plano, Texas
ROLE: Mechanical, Electrical and Plumbing
COST: $18 million

OVERVIEW

Michael Baker joined BSA Life Structures on the developer-led Reunion Rehabilitation Hospital project, providing mechanical, electrical and plumbing (MEP) systems design for a modern, three-story, 51,300-square-foot, 48-bed facility in the Dallas-Fort Worth area. The hospital offers comprehensive inpatient physical medicine rehabilitation treatments, and Michael Baker worked closely with the client and BSA Life Structures throughout the process to realize their design vision.

OUR WORK

Michael Baker's design included private patient rooms, two therapy gyms equipped with advanced treatment technology, outdoor therapy areas, isolation rooms and a variety of amenities. The team also addressed specialized requirements such as medical gas systems, nurse call technology, a 500 KW emergency generator and compliance with all TDHS standards.

KEY FEATURES

- (3) Story freestanding hospital
- 500 KW emergency generator
- Med-gas
- 48-patient rehab beds
- Two therapy gyms

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University of Texas, Health Science Center - Center for Oral Healthcare & Research

CLIENT: UT Health Science Center
LOCATION: San Antonio, Texas
ROLE: Mechanical, Electrical and Plumbing
COST: $4.5 million

OVERVIEW

The University of Texas San Antonio Health Science Center identified the need for comprehensive mechanical, electrical and plumbing (MEP) design to support a new Special Needs Ambulatory Surgery Center (ASC) within its Center for Oral Health Care. The project aimed to expand the institution's capacity to serve special needs clients by creating an environment tailored to their unique clinical and sensory requirements. Executive leadership envisioned a cohesive care experience, including a shared waiting room that would serve both the ASC and the adjacent operatories. This vision required careful coordination to balance functionality, patient flow, comfort and compliance with healthcare design standards.

OUR WORK

Michael Baker repurposed existing operatories for specialized use by special needs clients while integrating new MEP systems required for ASC functions. Under tight spatial and design constraints, the team developed solutions that preserved critical infrastructure while enhancing accessibility, safety and operational efficiency. Key design efforts included adapting HVAC and electrical systems to meet surgical-grade requirements, optimizing plumbing layouts for clinical workflows and ensuring all modifications aligned with regulatory and patient-centered care guidelines.

KEY FEATURES

- Converting research areas into surgical spaces
- Tight design conditions given space and time constraints

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University of Texas Health Science Center - Psychiatric Clinic

CLIENT: UT Health Science Center
LOCATION: San Antonio, Texas
ROLE: Mechanical, Electrical, Plumbing and Construction Administration

OVERVIEW

Michael Baker provided comprehensive design engineering services for the renovation of an existing Medical Office Building into a new psychiatric clinic for the University of Texas Health Science Center in San Antonio, Texas. This project involved transforming a 5,000-square-foot ground-level space to support behavioral health functions, including offices, a reception area, a group counseling and training room, a vitals area, a breakroom and restrooms. Because the program served medium-risk patients, the design team incorporated specialized requirements, including anti-ligature mechanical, electrical and plumbing (MEP) components and adherence to New York State behavioral health standards, which are widely recognized as industry best practice. These guidelines ensured that the renovated facility would provide both safety and therapeutic support for patients and staff.

OUR WORK

In addition to design services, the team provided construction administration support, including timely responses to requests for information, shop drawing reviews and coordination with the general contractor, architect and end user.

KEY FEATURES

- Renovation of a medical office building space into a space for psychiatric clinical services
- "Medium-risk" patient design
- Ligature-resistant MEP devices & systems

The Center for Hearing and Speech

CLIENT: Center for Hearing and Speech
LOCATION: Houston, Texas
ROLE: Mechanical, Electrical and Plumbing

OVERVIEW

Michael Baker was engaged to provide comprehensive mechanical, electrical and plumbing (MEP) engineering services for the new Center for Hearing and Speech, a facility that has served as a vital resource for pediatric hearing loss for more than 70 years. This new location supports the center's continued growth by enabling expanded patient capacity and additional service offerings. Working closely with the architect and end users, the design team ensured that the functional, technical and experiential goals of the client were successfully translated into the built environment. The project included core and shell build-out for offices, classrooms, multiple clinical exam rooms, an IT room and associated site lighting, all tailored to support the center's long-term vision and specialized clinical mission.

OUR WORK

This approximately 50,000-square-foot medical and educational building encompassed full MEP design, including HVAC systems integrating ductwork, air devices, fans and rooftop units. A central design challenge involved isolating noise-sensitive and vibration-sensitive areas from mechanical systems due to the auditory-focused nature of services performed at the center. The team implemented solutions that balanced technical performance with clinical sensitivity, ensuring a quiet, controlled environment essential for pediatric hearing care. In addition to delivering robust engineering solutions, the team expressed great pride in contributing to a project that meaningfully enhances care accessibility and positively impacts the lives of children and families throughout the Houston community.

KEY FEATURES

- Acoustic comfort-focused design
- Core & shell
- Exam/clinic rooms
- Site lighting

University of Texas MD Anderson Cancer Center - Hazardous Drug Pharmacies

CLIENT: University of Texas Systems
LOCATION: Houston, Texas (14 Locations)
ROLE: Mechanical, Electrical and Plumbing
COST: $1.5 million

OVERVIEW

Michael Baker was selected to evaluate 14 hazardous drug pharmacies operated by MD Anderson across multiple Houston campuses as part of efforts to upgrade facilities to meet USP 797 and 800 standards. These pharmacies prepare chemotherapy drugs in hazardous and non-hazardous compounding rooms, making an assessment of current conditions critical for safety and compliance. The team's evaluation examined each pharmacy's biological safety cabinets (BSC) configuration, airflow performance, and environmental controls essential to proper compounding.

OUR WORK

The project involved a thorough review of all BSC configurations, airflow mechanics, low return air designs, and assessments of fan filter units (FFU), air handling units (AHU), filtration systems, high efficiency particulate air (HEPA) integrity, pressure differentials, and pharmacy control systems. The team conducted site-specific airflow measurements for all supply, exhaust, and return grills to calculate actual room airflows required for USP compliance. Maintenance logs and HEPA replacement schedules were evaluated to confirm operational standards. All findings were documented by pharmacy, forming the foundation for location-specific design and upgrade plans.

KEY FEATURES

- Pharmacy control systems & air flow analysis
- Hazardous drug handling
- Meet USP 797 & USP 800 Standards
- FFUs
- AHUs
- Filtration systems

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Heights Hospital Renovation

CLIENT: MCD Partnerships
LOCATION: Houston, Texas
ROLE: Mechanical, Electrical and Plumbing
COST: $6.5 million

OVERVIEW

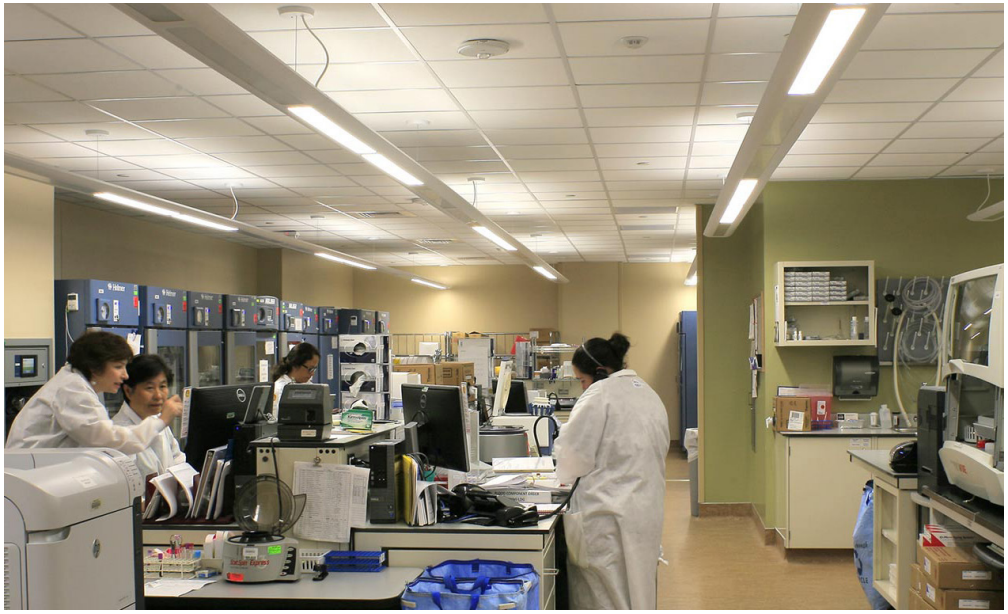
The project involved providing comprehensive mechanical, electrical and plumbing (MEP) engineering services for the renovation of a six-story, 160,000-square-foot hospital located in Houston's historic Heights neighborhood. The facility, which has served the community for more than 30 years, had undergone multiple expansions and renovations prior to the current improvement effort. Under new ownership, the hospital required modernization to align with contemporary healthcare standards, improve operational efficiency and ensure that the existing infrastructure could support updated clinical environments. To support these goals, the team conducted extensive surveys of the building and implemented significant updates to the MEP systems, ensuring compliance with current codes while preparing the facility for foreseeable future enhancements.

OUR WORK

The scope of work included close collaboration with electrical and mechanical contractors to resolve numerous existing-condition challenges and integrate a refreshed design aesthetic throughout the facility. This collaboration extended to active coordination with the project architect and ownership group, enabling the team to serve as a proactive partner during design and construction. A key component of the scope involved facilitating ongoing inspections and requirements issued by the Texas Department of Health and Human Services, ensuring regulatory alignment throughout the duration of the project. By addressing legacy infrastructure issues, modernizing system performance and supporting compliance activities, the team delivered a comprehensive and forward-looking MEP solution tailored to the hospital's long-term operational needs.

KEY FEATURES

- Complex phasing & retrofitting
- Occupied space
- Central plant upgrade



University of Texas Medical Branch Clinical Services Wing Pharmacy

CLIENT: University of Texas Medical Branch
LOCATION: Galveston, Texas
ROLE: Design Engineering
COST: $8 million

OVERVIEW

The project involved providing full design engineering services for the Clinical Services Wing at The University of Texas Medical Branch Galveston, where the existing pharmacy no longer met the requirements of the United States Pharmacopeia (USP) guidelines and required substantial upgrades. The pharmacy needed modernization to achieve compliance with USP 797/800 standards, which govern sterile compounding environments and hazardous drug handling. The team delivered mechanical, electrical and plumbing (MEP) design solutions that supported the creation of compliant intravenous hydration (IV HD) compounding rooms, staging spaces and an ante room necessary for sterile workflow and environmental control. These improvements ensured that the updated pharmacy environment would meet stringent pharmaceutical safety and regulatory requirements.

OUR WORK

The scope of work encompassed a comprehensive redesign of multiple building systems to support the upgraded pharmacy. The mechanical engineering team re-designed the HVAC systems, including modifications to air-handling units and ventilation strategies, to align with current code requirements and USP standards. The electrical scope included designing both normal and emergency power distribution, along with power for lighting systems essential to the controlled compounding environment. Plumbing upgrades were developed based on existing architectural constraints and included routing for hot and cold water, sanitary systems and vent piping to support pharmacy operations. These coordinated MEP modifications collectively enabled the facility to meet regulatory, operational and safety requirements for sterile and hazardous drug compounding.

KEY FEATURES

- Designed to USP 797/800 Standards
- Renovation
- IV HD compounding rooms

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Cancer Care Specialists Clinic

CLIENT: Quality Cancer Care Alliance
LOCATION: Reno, Nevada
ROLE: Mechanical, Electrical and Plumbing

OVERVIEW

The renovation project encompassed a 13,000-square-foot buildout designed to support advanced medical treatment and diagnostic functions. The upgraded facility accommodates specialized spaces, including two Linear Accelerator (Linac) vaults, as well as dedicated rooms for MRI and CT. These enhancements were tailored to meet the demanding technical, safety and environmental requirements associated with high-precision medical equipment and radiation therapy operations.

OUR WORK

The scope of work included the complete installation of new mechanical, electrical and plumbing (MEP) systems to support the expanded clinical functions, along with the integration of emergency power generators and high efficiency particulate air filtration where required. Additionally, the design team incorporated enhanced safety measures within the Linac vaults to ensure structural resilience and protection during seismic events. The upgraded systems and infrastructure were engineered to meet stringent healthcare facility standards while ensuring operational reliability for both staff and patients.

KEY FEATURES

- Renovation & build out
- 2 Linac vaults

Austin Wellness Center

CLIENT: Austin Wellness Center
LOCATION: Austin, Texas
ROLE: Mechanical, Electrical and Plumbing

OVERVIEW

Michael Baker was engaged to design and develop a two-story facility for the Austin Wellness Collective, located in the vibrant city of Austin, Texas. The goal of the project was to create a modern, welcoming and safe environment where individuals can access a full range of health and wellness services delivered by inter-professional collaborative care providers. The team was responsible for both the core and shell design of the building as well as a complete interior build-out to ensure a cohesive, functional and therapeutic space aligned with the Collective's mission.

OUR WORK

The interior scope included comprehensive design for both levels of the building, incorporating a variety of specialized spaces such as therapy rooms, office and work areas, massage therapy rooms, laser and injection rooms, locker rooms, a boutique, break and coffee rooms, laundry facilities and a dedicated Fotona laser room. Mechanical, electrical and plumbing (MEP) design services covered HVAC, plumbing, fire protection, electrical systems and coordination with external consultants. All drawings were developed in Revit to streamline interdisciplinary collaboration and the team also provided MEP calculations, preparation of construction documents and support during bidding and construction for this state-of-the-art wellness facility.

KEY FEATURES

- (2) Stories
- Full MEP design
- Interior buildout

Nutex Health

CLIENT: MLN Company
LOCATION: San Antonio, Texas
ROLE: Mechanical, Electrical and Plumbing

OVERVIEW

Michael Baker delivered mechanical design services for the renovation of a 34,000-square-foot hospital facility. This comprehensive renovation encompassed a wide range of program spaces, including exam rooms, open office areas, waiting and reception zones, restrooms, a procedure room, private offices, laboratory areas, storage rooms and specialized imaging suites such as X-ray, MRI and CT. All mechanical upgrades were developed to align with Texas Department of Health and Human Services specialty hospital requirements, ensuring the renovated facility supports both operational efficiency and patient comfort.

OUR WORK

The mechanical design scope included the specification and integration of new ductwork and air devices, along with packaged and split-system units and exhaust fans required throughout the facility. Beyond design, the team supported the project during the construction administration phase through timely responses to RFIs, thorough shop drawing reviews and ongoing coordination with the general contractor, architect and end-users. This collaborative approach helped maintain design intent, resolve issues quickly and support a smooth transition from design to construction.

KEY FEATURES

- Expansion equipment provided in lieu of chilled water systems to meet budgetary constraints

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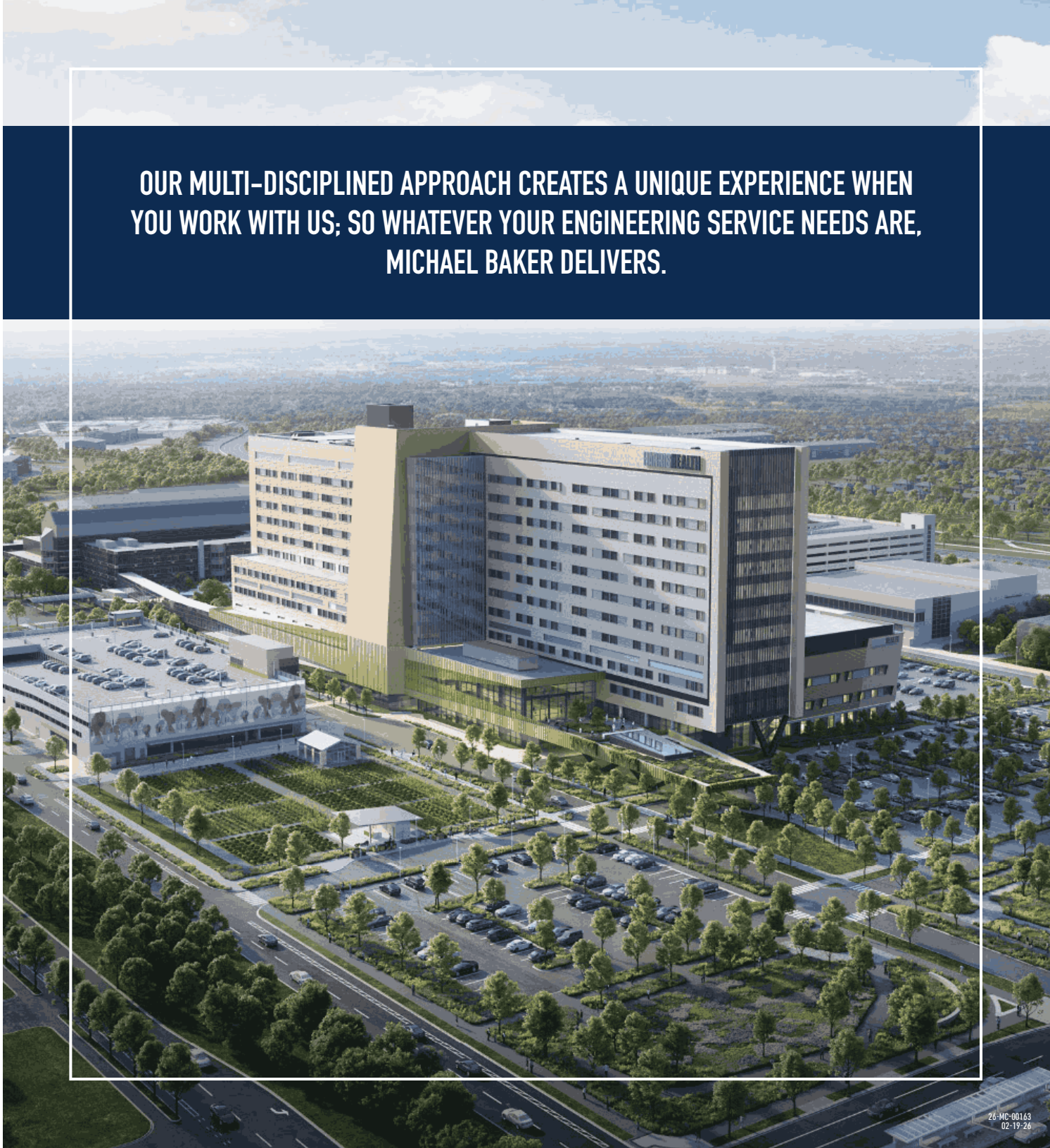

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