HEALTHCARE EXPERIENCE

SSOE®

www.ssoe.com

Impactful Designs

Creating Environments With a Lasting Impact on the Community

Enhancing the Experience

On January 1, 2021, Stevens & Wilkinson and **idea|span**, the firm's interior design studio, joined **SSOE Group's national platform** of award-winning engineers, architects and construction management professionals. As a combined firm, we now offer a range of integrated design services that incorporate smart design solutions with technical precision and timely delivery.

About SSOE

With offices located throughout the Southeastern United States, SSOE prides itself on developing forward-thinking strategies for our client's culturally and socially significant projects. We couple strong design principles with emerging technologies to create sustainable environments that have a lasting and positive impact on our communities.

To date, we have worked on projects for clients in the government, education, **healthcare**, historic preservation, mixed-use, and adaptive reuse markets. As one of the largest full-service firms in the Southeast, we successfully approach each project with tailored design strategies. By working directly with you, we deliver solutions that are not only innovative, but unique.


EXIT
EXIT
S&W
S&W

ARCHITECTURE

Basic Design Services
Architectural Design
Electrical Design
Mechanical Design
Structural Design
Civil Design

Supplemental Services
Building Programming
Existing Drawing Verification
Medical Equipment Planning

Value Management
Value Engineering
Life Cycle Costing
Energy Analysis

Interior Services
Interior Design Space Planning + Utilization Studies
Tenant Lease + Workletter Consultation
Furniture + Equipment Selection/Specification

Planning + Research
Building Analysis
Feasibility Studies
Cost-Benefit Analysis
Master Planning
Historic Structural Studies
Environmental Impact Analysis
Land Development Studies
Zoning Studies

ENGINEERING

Mechanical
Chilled/Hot Water Systems
Heat Exchangers
Energy Recovery Systems
Dedicated Outside Air Systems
Chilled Beam
Underfloor Air Distribution
Humidifiers/Dehumidifiers
Air Ortation
Variable Refrigerant Flow
Water Source Heat Pump
Geothermal
PTAC < Split + Packaged DX Systems

Structural
Structural Steel Design
Concrete Design
Masonry Design
Wood Design
Concrete Structure Rehabilitation
Existing Floor Capacity Analysis
Foundation Design
3D Space Frame Analysis

Plumbing
Domestic Cold/Hot Water
Sanitary Waste Vents
Storm Water
Laboratory/Chemical Waste
Reverse Osmosis + Deionized Water Systems
Medical Gas/Vacuum
Compressed Air
Natural Gas

Electrical
Lighting Design + Analysis

Fire Protection
Building Analysis
Feasibility Studies
Cost-Benefit Analysis
Master Planning
Historic Structural Studies
Environmental Impact Analysis
Land Development Studies
Zoning Studies

Other Services
Building

Dr. Raymond P.H. Bynoe Surgical Trauma Intensive Care Unit

Prisma Health Richland / Columbia, South Carolina

Dr. Raymond P.H. Bynoe STICU

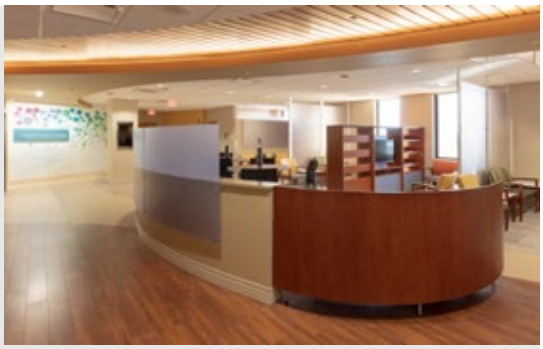
Bynoe Surgical Trauma Intensive Care Unit

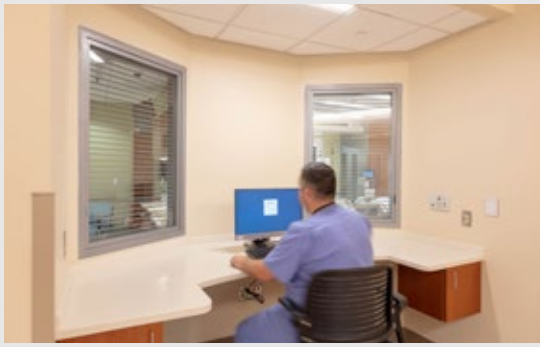
Prisma Health Richland | Columbia, South Carolina

The new STICU is Phase I of an overall $38 million ICU Master Plan for Prisma Health Richland. The Richland Hospital is the tertiary healthcare facility for the Midlands region and is the only Level 1 Trauma Center in the area. Due to their traumas, patients treated in this unit are the most vulnerable to detrimental environmental effects. Great care was taken to create a unit that would environmentally support patients, staff, and their families – focusing on infection control, therapeutic lighting, expanded room size, equipment placement and coordination, and staff views of and access to their patients.

A highlight of the design is the use of "tunable lighting" as a therapeutic treatment and environmental enhancement for patients and staff. Tunable lighting, which uses LED lighting to mimic the natural progression of daylight, is utilized throughout the 18-bed unit. Research has begun to show this type of lighting may help patients heal faster, decrease delirium, and have less long-term negative mental distress from being in the hospital. This type of lighting has also been shown to increase staff alertness, lessen fatigue, and limit health issues associated with night shift work.

In addition to the tunable lighting feature is the use of disposal rooms in lieu of patient toilets. As these patients are typically too sick to move, the unit utilizes a shared disposal room between each pair of patient rooms, giving staff a close disposal location that decreases the infection issues associated with the transport of sanitary waste. In addition, each disposal room is equipped with a special light that is illuminated when the room is not occupied, has been tested to kill 99.9% of germs and bacteria. The overall design includes materials and finishes that are easy to clean and durable. The interior palette consists of natural toned colors and patterns, including faux wood soffits, stone-like seamless flooring, and sound absorbing ceilings, and soffits of varying heights.





FAST FACTS:

Completion: 2018

Cost: $5,000,000

Size:
18,000 SF
18 patient rooms

Services: Architecture, Engineering, Interior Design

South Carolina State Veteran's Home - Small House Model Care Facility

South Carolina Department of Mental Health / Florence, South Carolina

South Carolina State Veteran's Home - Small Care Facility

SC State Veteran's Home - Small Care Facility

SC Department of Mental Health / Florence, South Carolina

SSOE in conjunction with EBA, Ernest Bland Associates, P.C., recently completed two state-of-the-art 104-bed Veterans Nursing Facilities. A major objective of the design was to develop an environment for Veterans that resembles a home. Each resident has a private bedroom with an adjacent private bath. Additionally, each facility allows members the freedom of choice in their activities and routines which may include clinical, therapeutic, extracurricular, and spiritual activities that support the daily needs of Veterans. The environments were focused on the resident as the center of care, thereby enhancing the quality of life and dignity of those residing in the facilities.

Single-loaded concourses and corridors facing landscaped courtyards were utilized as an organizing design element to maximize direct visual and physical connections to outdoor areas and assist with wayfinding. A broad concourse ("hall") connects the main entrance to a central lounge and a generous "back porch" seating area facing the main courtyard. This central hall has ample natural light from clerestory windows above.

Each facility was designed as a single-story facility organized around a series of courtyards. These courtyards are surrounded by a central community building and four adjacent neighborhood buildings. Each neighborhood houses two resident homes consisting of 13 private patient rooms with shared living and dining spaces. The community center is approximately 34,000 square feet and houses common "gathering" and activity spaces such as a "bistro," large group room, activity room, chapel, physical/occupational therapy, and clinical spaces for therapeutic functions and staff/administrative spaces.

FAST FACTS:

Completion: 2021

Cost: $5,000,000

Size: 142,000 SF, 104-beds/facility

Services: Planning, Architecture, Engineering, Interior Design

South Carolina State Veteran's Home - Small House Model Care Facility

South Carolina Department of Mental Health / Gaffney, South Carolina

South Carolina State Veteran's Home - Small Care Facility

SC State Veteran's Home - Small Care Facility

SC Department of Mental Health / Gaffney, South Carolina

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FAST FACTS:

Completion: 2021

Cost: $5,000,000

Size: 142,000 SF, 104-beds/facility

Services: Planning, Architecture, Engineering, Interior Design

Parkridge Ambulatory Services

Prisma Health Baptist / Columbia, South Carolina


1
2
3
4

Parkridge Ambulatory Services Upfits

Prisma Health Baptist / Columbia, South Carolina

This project, which includes three floors of upfit space, serves multiple practices and is designed using an innovative approach not commonly found in medical office facilities. A central reception combined with decentralized waiting space with multiple entrances allows for efficient patient and staff circulation within each clinical area. Patient anxiety is decreased by simplifying the internal circulation and way finding between reception, exam room, and check-out. The reception space has four areas for patient check-in and check-out, both of which share a workspace separated by a frosted glass panel.

A total of five practices occupy the second floor, all sharing a procedure space and team center. An orthopedic practice, also located on this floor, includes specialized areas for casting, concussion testing, hand and foot procedures, and X-ray. The third floor is dedicated to an Obstetrics and Gynecology practice, and has a direct enclosed connection to the third floor of the hospital which is also home to the Women's Center. This practice includes seven providers, each with three exam rooms and a dedicated patient rest room adjacent to a team center. A shared procedure space, which includes three Ultrasound rooms, two minor procedure areas and three non-stress test rooms, are located centrally on this floor as well.

The majority of the fourth floor is home to a Cardiology practice, which include Echo, Treadmill, Pacemaker, Nuclear Camera and X-ray areas, while the remainder houses a Pulmonary Care practice. The clinical practice area on this floor was specifically designed to reduce patient travel time by concentrating staff spaces along the south corridor through the use of shared offices, combined team centers and an in-room electronic medical records system. Furthermore, team centers are located with a direct view to the corridor allowing staff to better visualize floor traffic.

FAST FACTS:

Completion: 2014

Cost: $6,000,000

Size: 20,000 SF
Three floors

Services: Architecture, Engineering, Interior Design

Primary Care & YMCA Express

Prisma Health Ballentine / Irmo, South Carolina

Primary Care & YMCA Express

Primary Care and YMCA Express

Prisma Health Ballentine / Irmo, South Carolina

Prisma Health, in conjunction with the local YMCA of Columbia, developed a new health and wellness facility that is now home to an integrated primary care medical clinic and wellness/fitness center. This 22,500 square foot facility, located in Ballentine, SC, serves three primary functions: a primary care physician practice, a wellness/fitness program, and a public gathering/education space.

The primary care program includes accommodations for up to four providers with associated x-ray and lab areas, while the wellness/fitness program includes general workout space, small and large group exercise areas, locker rooms and toilets, and short-term child watch. The education component includes an open lobby with interactive spaces and a formal multipurpose classroom.

The building's exterior design furthers the Prisma Health brand and is similar to the exterior design of the recently opened Parkridge Hospital. As such, the exterior materials are a combination of cementicious walls, accent stone, and glazing. The interior planning includes a common entry point which allows and encourages patients to interact with the wellness function, thus inspiring a healthy lifestyle.

FAST FACTS:

Completion: 2015

Cost: $5,500,000

Size: 22,500 SF

Services: Programming, Architecture, Engineering, Interior Design

University of South Carolina Orthopedics

Prisma Health / Columbia, South Carolina


SHUTTLE MVP

University of South Carolina Orthopedics

Prisma Health / Columbia, South Carolina

BAPTIST: SSOE worked with Prisma Health on the design and development of a new 5,000-square feet rehab facility located at the recently completed Baptist Parkridge hospital. The space was designed to allow caregivers to work one-on-one with patients as they are guided through treatment, diagnosis and recovery. Rehab spaces include an open floor plan with natural views and daylight to energize patients on their path to wellness. Each office provides a more tranquil environment with a high level of connectivity between patients and the medical team.

NORTHEAST: Working with the Prisma Health/University of South Carolina Medical Group, SSOE has recently completed a full service Orthopedics clinic with associated rehab space. The clinic is designed around an innovative work flow that includes semi-independent physician, physician assistant, and nurse/ tech within a self-sufficient module. The overall practice is large, however the patient experience remains small and personal. The rehab space was designed to be open and light filled helping to encourage the patients with their medical rehabilitation.

DOWNTOWN: Currently under design, this facility will house a sports training and rehabilitation program. Built within an existing warehouse, the final design will include indoor running tracks, turf play areas, video recording and analysis equipment, and weight therapy. The open floor plan will have access to outdoor training areas via a roll-up garage door and will include a basketball court, running lanes, and a sand pit.

FAST FACTS:

Completion: 2016

Cost: Baptist - $403,863
Northeast - $2,035,000
Downtown - $568,983

Size: Baptist - 5,000 SF
Northeast - 28,500 SF
Downtown - 8,500 SF

Services: Architecture, Engineering, Interior Design


CaroMont Regional
Medical Center
Mount Holly

Freestanding Emergency Care Department

CaroMont Health / Mt. Holly, North Carolina

Freestanding Emergency Care Center

CaroMont Health / Mt. Holly, North Carolina

SSOE completed the design of the new CaroMont Regional Medical Center – Mount Holly, a freestanding emergency care complex for CaroMont Health.

This cutting-edge facility, which opened in the spring of 2015, was designed using an innovative "no wait" model for patient care delivery. Upon entering the Center, patients will be immediately taken into one of six Rapid Medical Evaluation (RME) rooms for triage and initial assessment, with additional diagnostic testing and lab work performed as needed. Upon waiting for their test results, patients and their families will be moved into a Results Lounge, a comfortable space with large windows and scenic views.

This two-story facility also includes 12 treatment rooms and two trauma/resuscitation rooms (both highlights of the facility), as well as a separate ambulance entrance for Gaston Emergency Medical Services. Located adjacent to the main entry and treatment rooms, the Center also includes a Diagnostic Imaging (CT, X-Ray, Ultrasound) Suite and Laboratory, which is now available for use by emergency personnel and outpatients. Situated on the lower level is the Center's support services department, mechanical and electrical rooms, and a private staff entrance way.

The building, designed to harmonize with the architectural character of Mt. Holly, is reminiscent of the historical mill buildings of the area.

FAST FACTS:

Completion: 2015

Cost: $15,000,000

Size: 38,000 SF

Services: Architecture, Engineering, Interior Design

Healing Waters Spa

Prisma Health Baptist Parkridge / Columbia, South Carolina

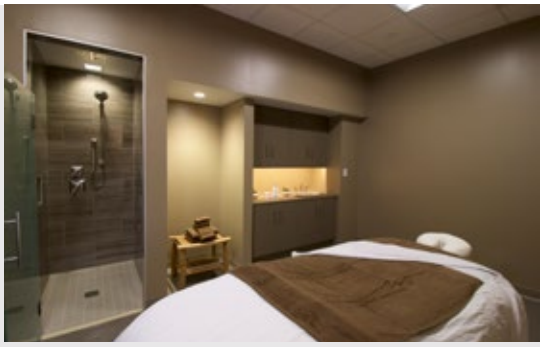
Healing Waters Spa

Prisma Health Baptist Parkridge / Columbia, South Carolina

The new Healing Waters Spa at Prisma Health Baptist Parkridge provides a number of traditional spa treatments and aesthetic cosmetic services designed to reduce stress, stimulate healing and enhance the personal well-being of patients.

Lead by a team of highly trained professionals, the design highlights the brand's 'Transformational Change Principles' – CALM, BALANCE, CORRECT, RESTORE - which were creatively interwoven throughout the design of the facility.

Located on the first floor of the recently completed Prisma Health Baptist Parkridge Hospital, Healing Waters features a spacious retail area, numerous medical procedure rooms, associated office and consultation spaces, esthetician and massage therapy rooms, relaxation area with food and beverage bar, full-size locker rooms, steam room, and customized water features.



FAST FACTS:

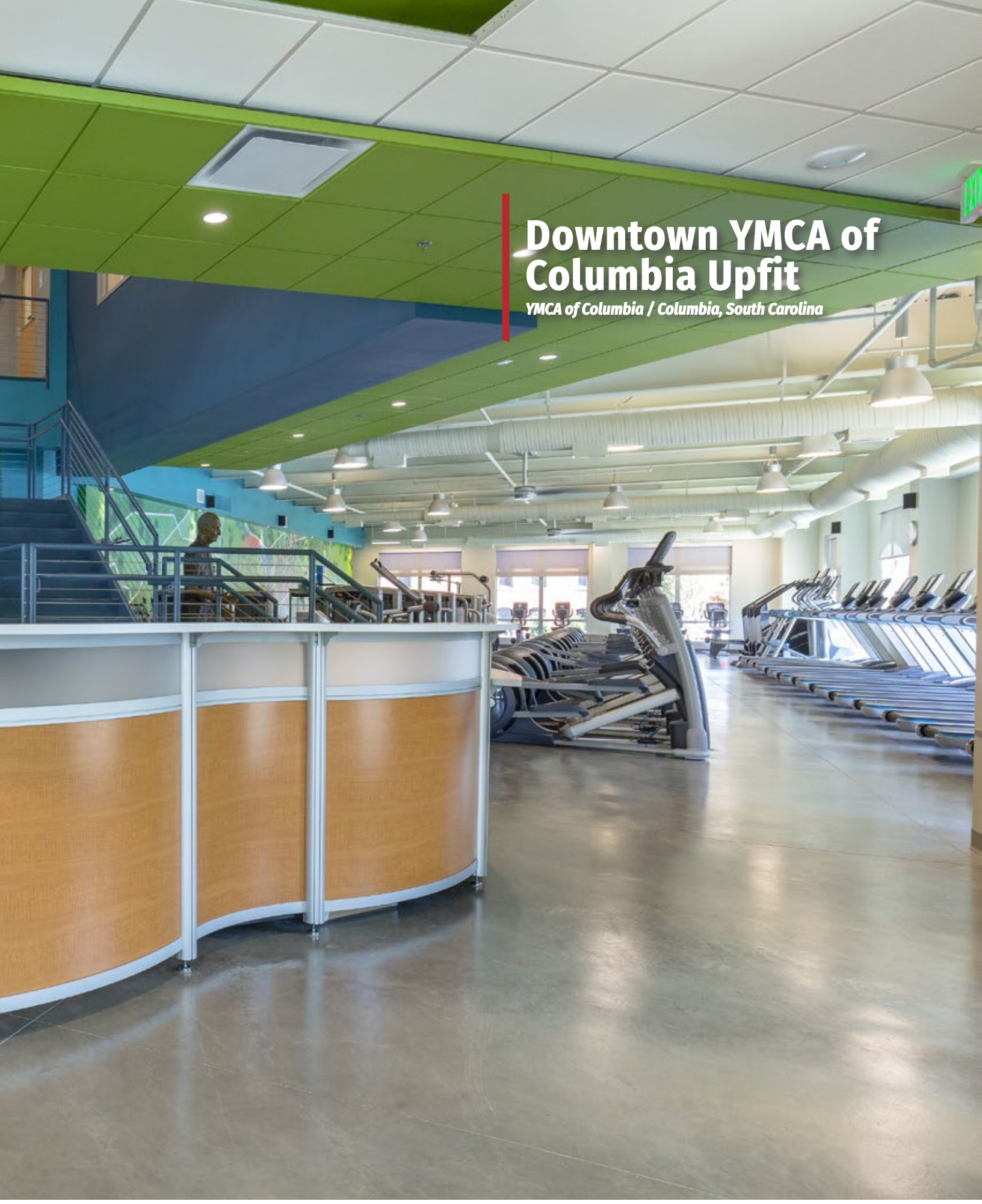
Completion: 2015

Cost: $1,200,000

Size: 6,400 SF

Services: Architecture, Engineering, Interior Design


the
YMCA



Downtown YMCA of Columbia Upfit

YMCA of Columbia / Columbia, South Carolina


GROUP

Downtown YMCA of Columbia Upfit

YMCA of Columbia / Columbia, South Carolina

The Downtown YMCA of Columbia has been a cornerstone in the Columbia community for more than 150 years. In order to accomplish the program goals needed to successfully move into their new space, SSOE was brought on to help envision a new downtown presence that would meet the needs of the Main Street Business Community.

Located at the corner of Bull and Hampton streets, the new facility is centrally situated within the downtown proper's growing Business District and is convenient for both businesses and residents to use.

The two-story facility provides a new image for the YMCA of Columbia and incorporates a modern, sleek, and inviting environment. The main level, which houses all fitness and state-of-the-art aerobic equipment, is connected to the upper level by an open stairwell. The second level highlights a large group fitness room, a small cardio training room, and yoga/exercise room, with small personal storage lockers and a seating area. Corporate style locker rooms are also provided for men and women and includes a sauna and steam room in each space.

FAST FACTS:

Completion: 2015

Cost: $1,200,000

Size: 6,400 SF

Services: Architecture, Engineering, Interior Design

“We’ve worked hard to develop a state-of-the-art facility that meets the needs of our members and community. Our new Downtown YMCA enables us to better support the people

and neighborhoods that need us the most by providing a 'new' environment that will allow us to offer better programming at a more local level." - YMCA Chief Executive Officer


Physician
Workroom
H478C

Surgical Trauma Intensive Care Unit

MUSC/MUHA / Charleston, South Carolina

Surgical Trauma Intensive Care Unit

Surgical Trauma Intensive Care Unit (STICU)

Medical University of South Carolina (MUSC), Medical University Hospital Association (MUHA) / Charleston, South Carolina

The Surgical Trauma Intensive Care Unit located on the fourth floor of the existing Medical University Hospital, includes a complete demolition and construction of 10,000-square feet of space.

The new unit includes 17 new private patient rooms large enough to accommodate family, staff and equipment needs. The unit design will include spaces for family consultation and physician teaching spaces.

Views to the outside, patient privacy and safety, appropriate lighting levels and color, and sound control were all important issues addressed in the design.

FAST FACTS:

Completion: Phase I - 2009
Phase II - 2010
Phase III - 2010

Cost: Phase I - $250,000
Phase II - $3,200,000
Phase III - $775,000

Size: Phase I - 3,431 SF
Phase II - 10,000 SF
Phase III - 3,020 SF

Services: Architecture, Engineering, Interior Design


rmc
Cardiac Rehab
Mabry Cancer Center
HEALTHPLEX
Education Center
Receiving
Employee Parking

H. F. Mabry Cancer Care Center

The Regional Medical Center / Orangeburg, South Carolina

H. F. Mabry Cancer Center

The Regional Medical Center / Orangeburg, South Carolina

Faced with growing patient volumes and a need to renew the The Regional Medical Center's (tRMC) image, SSOE designed the additions and renovations to the H.F. Mabry Cancer Center, an 18,000-square foot facility with a USP 797 Compliant Pharmacy, Chemotherapy Infusion Suite, and a new Linear Accelerator Vault.

Designed to improve patient flow and provide state-of-the-art treatment areas, the 5,000-square foot Chemotherapy Suite has 16 semi-private infusion bays and four private treatment bays. All patient spaces have views to the exterior window garden with extensive north face glazing while also providing flexibility for patient interaction.

The staff work areas are located under clerestory windows, giving the staff a pleasant environment to work. The new 2,200-square foot, maze-less Vault houses a new LINAC, designed to decrease treatment times for patients and increase patient flow throughout the facility. Additionally, the lobby was increased in size while the check-in and discharge function at the reception area was renovated to provide for an increase in privacy and overall staff efficiency.

FAST FACTS:

Completion: 2013

Cost: $3,800,000

Size: New Construction: 18,000 SF
New Chemotherapy Suite: 5,200 SF
Linear Accelerator Vault: 2,200 SF
Renovation: 4,400 SF

Services: Architecture, Engineering, Interior Design

Design Awards: IIDA Carolinas Chapter 2014 Honorable Mention

Children's Mental Health Facility at Bryan Hospital

SC Department of Mental Health / Charleston, South Carolina

Children's Mental Health Facility

Children's Mental Health Facility at Bryan Hospital

SC Department of Mental Health / Columbia, South Carolina

SSOE worked with the South Carolina Department of Mental Health to develop the program and design for a new Pediatric and Adolescent Mental Hospital located on the organization's existing mental health campus.

Plans called for a full-service hospital to accommodate up to 82 patients in private rooms. The project also includes an outpatient services clinic and auditorium.

Project goals were to design and construct a state-of-the-art facility based upon industry best practices and national benchmarking. Similar facilities built across the country were analyzed and studied in preparation of the building program. Staff and administration involvement was also instrumental in the development of the clinical and operational model.

FAST FACTS:

Completion: 2015

Cost: $24,000,000

Size:
New Construction: 25,000 SF
Renovation: 31,000 SF
Total: 56,000 SF

Services: Architecture, Engineering, Interior Design

James E. Clyburn Research Center

Medical University of South Carolina / Charleston, South Carolina

James E. Clyburn Research Center

James E. Clyburn Research Center: Bioengineering Building

Medical University of South Carolina / Charleston, South Carolina

The facility, which features a spacious public plaza, a continuous lobby with multiple connectors, and a back-lit tower, creates a "public front door" for the MUSC research campus and provides a new focal point for the community.

The **Bioengineering Building** is carefully designed to support translational bioengineering research, development, education and technology transfer. Certified LEED Gold by the U.S. Green Building Council, the 98,000-square foot facility connects to the Center's new Drug Discovery Building.

Home to the administrative offices of the South Carolina Bioengineering Alliance, the facility also contains a number of classrooms, administrative offices for the College of Graduate Studies, an auditorium, wet and dry labs for cancer genomics research, lab space for regenerative medicine and tissue engineering research, biomaterials, devices, and computational biomolecular modeling and simulation.

Additionally, two of the floors were designed to exclusively support bioengineering research pertaining to stem cell, Nano-science, and small animal and molecular imaging research; while the building's top floor is dedicated to cancer research.

FAST FACTS:

Completion: 2011

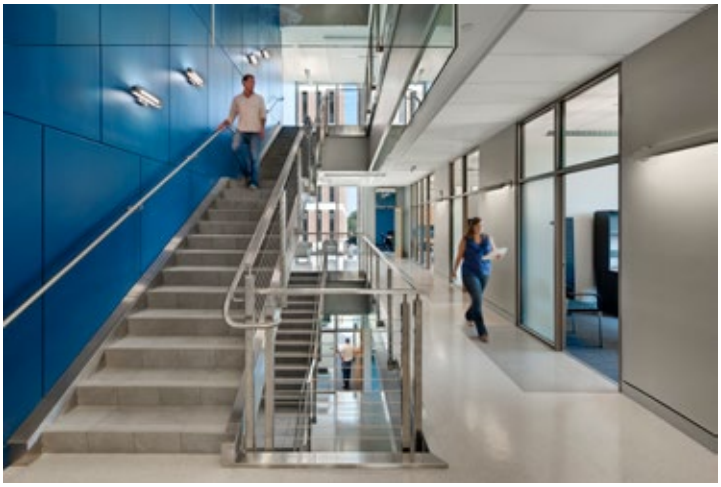
Cost:
Bioengineering Building: $38,000,000

Size:
Bioengineering Building: 98,000 SF

Services: Architecture, Engineering, Interior Design

Design Awards: AIA Columbia Chapter 2012 Merit Award

James E. Clyburn Research Center



James E. Clyburn Research Center: Drug Discovery Building

Medical University of South Carolina / Charleston, South Carolina

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The project illustrates our team's understanding and successful implementation of the University's local design criteria. In addition to new classrooms, administrative office suites and labs, each space is equipped with the latest A/V technology. Through the connected **Drug Discovery Building**, researchers have direct access to resources for regenerative medicine and molecular biology research, cellar and molecular modeling and simulation, and imaging.

This inter-disciplinary, multi-departmental facility is designed to enhance public and private sector biomedical resources focused on the drug discovery process and is home to the Comparative Medicine, Pharmacology and Pharmaceutical Sciences Departments, as well as the Hollings Cancer Center for Research, Biochemistry, and Molecular Biology. Specialized spaces within the building include an animal imaging center (CT, pet, optical imaging), NMN capabilities, a 280-seat auditorium, multiple seminar spaces, and a pharmacy teaching lab.

FAST FACTS:

Completion: 2011

Cost:
Bioengineering Building: $42,000,000

Size:
Bioengineering Building: 108,000 SF

Services: Architecture, Engineering, Interior Design

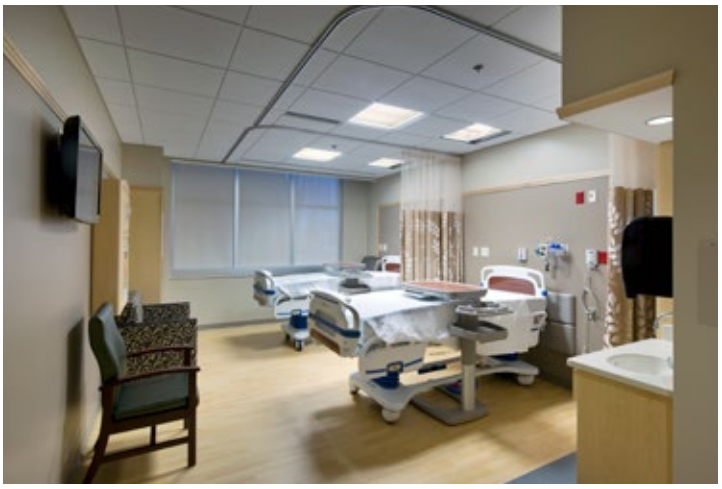
Design Awards: AIA Columbia Chapter 2012 Merit Award


ProMEDICA

Wildwood Orthopaedic & Spine Specialty Hospital

ProMedica Health System / Toledo, Ohio

Wildwood Orthopaedic & Spine Specialty Hospital



Wildwood Orthopaedic & Spine Specialty Hospital

ProMedica Health System / Toledo, Ohio

This single-story, freestanding, orthopaedic and spine specialty hospital is located on a satellite outpatient campus of the ProMedica Healthcare System. This facility is ProMedica's first all-digital hospital, complete with electronic health records technology and comprehensive inpatient and outpatient diagnostic services, including CT, MRI, and general X-ray. This project constitutes Phase II of the campus development for orthopaedic services (Phase I, which consisted of the construction of a Medical Office Building (MOB), was completed separately). Phase II involved linking the hospital to the MOB, which houses the primary orthopaedic physicians' practice via an enclosed, overhead pedestrian connector. Our team of BIM experts utilized 3D modeling to develop and illustrate details of the project.

Since the new hospital is a significant addition to the existing campus, coordinating site access, circulation, parking, and utilities were critical to the project's success. To address these issues, the orthopaedic facility was designed to be consistent with the existing campus master plan. Future expansion needs were considered during the site / facility planning stage, as was the hospital's environmental impact, to which SSOE responded by incorporating LEED® principles into the design.

The construction duration was approximately 15 months. Early civil and structural engineering packages were issued to expedite the construction process. To eliminate the need to fireproof the structural steel, the facility was classified as three buildings (each Type IIB construction). Each building was separated by a two-hour fire wall, with each containing two smoke compartments.

FAST FACTS:

Completion: 2011

Size: 70,000 square feet

Features: 36 private patient rooms;
Six High-tech Integrated Operating Rooms with 24 recovery bays;
CT, MRI, and X-ray;
Use of BIM;
LEED® Design Principles;
HemoSafe Blood Management System (One of only eight units in the Country);
eICU® Tele-medicine System

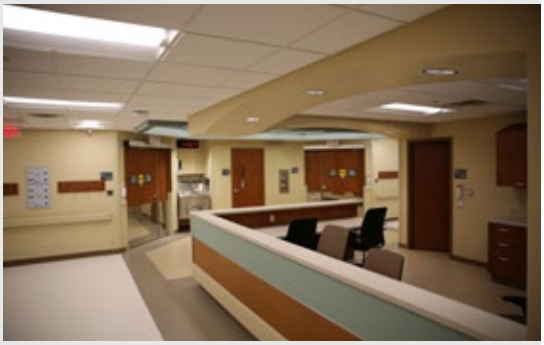

SKYTRON
AURORA
PHILIPS

Macomb Hospital – Hybrid OR & Surgical Suite

Henry Ford Health Systems / Clinton Township, Michigan

Macomb Hospital - Hybrid OR & Surgical Suite

Henry Ford Health Systems / Clinton Township, Michigan



SSOE provided architectural, mechanical (HVAC and plumbing), electrical, and fire protection design services for Henry Ford Macomb Hospital's surgical department expansion. The project included a more than 1,000 SF state-of-the-art hybrid operating room that converts to general surgery in minutes and six additional 800+ SF operating rooms capable of handling anything from orthopedic surgery to eye surgery. The space also includes a separate cardiovascular operating and perfusion room—more than doubling the size of their previous operating spaces.

A combination of projects led up to the surgical department expansion. These included relocating and expanding the central sterile processing department, inpatient USP 797 compliant pharmacy, catheterization and interventional radiology department, and pre- and post-operative patient holding. The phasing of the projects was pivotal in maintaining a fully operational facility and, in turn, the development of a successful project.

In addition to the extra space, new technology, and functional upgrades, SSOE also incorporated large murals along the walls of the corridor featuring the beautiful Great Lakes State to enhance the patient experience.

FAST FACTS:

Completion: 2021

Size:
Surgical Addition/Relocation: 22,100 SF
Pre/Post-Op Relocation: 13,100 SF
CSPD Relocation: 6,800 SF
Pharmacy Relocation: 4,200 SF
Heart Cath / IR Relocation: 9,500 SF

Services: Architecture, Engineering


EDGE

Varian EDGE Radio - Surgery System

Henry Ford Health Systems / Detroit, Michigan


VARIAN
EDGE
EDGE
EDGE

Varian EDGE Radiosurgery System

Henry Ford Health Systems / Detroit, Michigan

Henry Ford Health System chose SSOE to provide architectural and engineering services, which included the removal of a linear accelerator (LINAC) and installation of a new Varian EDGE radiosurgery system in an existing vault in the basement of Henry Ford Hospital. Initially, the vault was not adequately shielded for the radiation output of the new equipment, as determined by the client's on-staff physicist.

SSOE worked closely with the physicist, shielding contractor, and construction manager to creatively solve this problem and ultimately provided a fully-shielded treatment room to house the first EDGE radiosurgery LINAC of its kind in North America—second in the world.

SSOE has become a trusted partner of Henry Ford Health System over the years, often called upon to provide our expertise in some of the most challenging of circumstances. We pride ourselves on providing the finest solutions in architectural, structural, mechanical, and engineering services to allow our customers to provide their patients with unparalleled healthcare.

The EDGE radiosurgery system allows doctors to minimize treatment time and provide more accurate treatment of cancerous tumors, while minimizing radiation damage to normal tissue surrounding the tumor.

FAST FACTS:

Completion: 2014

Size: 2,000 SF

Services:
Architecture, Engineering

Cardiac Intensive Care Unit

Beaumont Health System / Troy, Michigan

Cardiac Intensive Care Unit

Beaumont Health System / Troy, Michigan

SSOE collaborated with Beaumont staff to determine the appropriate solution for the new Cardiac Intensive Care Unit (CICU). While the overall design intent for the 6th floor was to match an existing 5th floor ICU, SSOE added several enhancements to cater to the specific needs of the CICU. The design team met with the intensive care nursing staff from the 5th floor and gathered feedback on what worked well and what should be improved upon to better document end-user experiences. The lessons learned provided a foundation for discussion with the staff who would be working in the new space.

Taking this input, and that of Beaumont's internal interior design staff and facility maintenance team, SSOE incorporated a number of design enhancements. The new CICU includes a family nourishment area, room amenities for patient guests and individual toilet rooms dedicated to each patient room with an integrated shower. Additionally, the CICU features decentralized nurse documentation spaces for a 1:2 nurse ratio with windows for direct visual observation of the headwall–allowing staff to see both the monitoring equipment and patient, dedicated lighting for both staff and visitors, and three sub-waiting areas within the CICU to provide quiet spaces for patient family members when needed.

A unique challenge the project team had to overcome was the utilization of existing floor drains and plumbing for the reconfigured private patient toilet rooms—originally set up to accommodate a single unit bathing room and a shared toilet room between two patient rooms. The team used laser scanning to document existing conditions and manipulate the design around elements in a 3D environment. Another challenge was timing. The COVID-19 pandemic caused Beaumont Health to place construction of the project on hold. Once restarted, the design was altered, slightly, during the construction phase to become more adaptable in the event of similar future capacity overflow situations. Revisions included additional electrical outlets, medical gas, and a monitor added to each headwall — allowing Beaumont to convert from private to semi-private rooms.

FAST FACTS:

Completion: 2021

Size: 14,830 SF
12-Bed Relocation

Services: Architecture
Engineering (Mechanical, Electrical, Fire Alarm, Fire Protection, Plumbing)