Greating Rope:



By Mary Kremposky McArdle • Associate Editor

y late January, the dark days of winter begin to ease and subtly shift toward the light. As the New Year began its annual opening to the light, the Brigitte Harris Cancer Pavilion opened its doors on January 20, 2021, to patients of Henry Ford Cancer Institute's new global destination for cancer care in the heart of Detroit. The building's very healing force. architecture is a SmithGroup's design speaks in the language of light to convey hope, confidence and encouragement to cancer patients and their families: the east façade's generous glazing glows in the morning light and the lobby's 30-foot-high walls of glass become a light-filled vessel drawing in views of Henry Ford Health System's (HFHS) flagship hospital across West Grand Boulevard. At night, the building stands as a shining beacon of hope embodying the leading-edge

medicine and the supportive healing environment within this innovative cancer center.

From the infusion center and its outdoor rooftop terrace to the first-floor placement of radiation oncology services typically located in a sunless basement, every patient space benefits from this architectural form of light therapy. Henry Ford Health System and the design and construction team went the distance in delivering this life-saving facility offering hope and healing to oncology patients across the country and even around the globe.

construction manager, Turner Construction Company's Michigan office partnered with associate construction manager KEO & Associates, Inc. to deliver hope on schedule. The team even provided more than the Henry Ford Cancer Institute hoped for in the new facility. Budget-wise, Turner-KEO worked aggressively with the entire team to deliver "more scope than the original base project," said Jeffrey Ringvelski, HFHS Director, Facilities Design & Construction.

In late December 2020, Turner-KEO turned over the entire project, including the building's six-story tower and its threestory section, a 690-car parking garage due south of the building, and a pedestrian bridge, christened the Nancy Vlasic Skywalk, directly linking the new outpatient pavilion to the in-patient Josephine Ford Cancer Center in the main hospital across West Grand Boulevard.

Merging History and High Technology

The design and construction team wove together the building's varied massing and diverse exterior façade, including unitized glass, metal panels, and a series of brick columns in harmony with the main ◆ Photo Credit: Justin Maconochie Photography LLC

The brick aesthetically links the new facility to Henry Ford Health System's flagship hospital across West Grand Boulevard. The building's glazing and contemporary design speak to the innovations in cancer care and precision medicine available in this world-class facility.

hospital's iconic brick façade. In what SmithGroup's Vice President, Health Studio Leader Ann Kenyon calls "a merge of history and high technology," the brick aesthetically links the new facility to Henry Ford Hospital, a centennial healthcare institution opened in 1915. The building's glazing and contemporary design speak to the innovations in cancer care and precision medicine available in this worldclass facility.

The architectural marriage of these early twentieth century and early twenty-first century buildings continues in the interior. The glass-wrapped lobby invites in views of the main hospital's signature façade, while a signature feature, called the DNA Wall, expresses the pavilion's medical advances in oncology treatment. The DNA Wall is an architectural feature formed of

panels and a wood futuristic pattern of backlit acrylic glass cylinders softly glowing in different shades of Henry Ford blue. The DNA Wall expresses the Institute's innovations in cancer research and treatment, and more specifically, the backlit cylinders represent DNA the Institute's and expertise in advanced precision medicine.

Defeating Cancer

Precision medicine tailors cancer treatment to each person's genome or unique set of genetic instructions. This personalized approach to oncology is transformative and vital because "two people may have the same type of cancer, but no two people respond to treatments in precisely the same way," according to the HFHS website.

"A decade ago - I dare say even five years ago - some of the cures and treatments we have today were thought of as space-age science fiction, but because of the miracles of modern precision cancer care and the hope and perseverance of our teams, and especially our patients, those dreams are now a reality," said Steven N. Kalkanis, M.D. at a virtual celebration of the new facility in January 2021. Dr. Kalkanis is CEO of the Henry Ford Medical Group and Senior Vice President and Chief Academic Officer of the Henry Ford Health System.

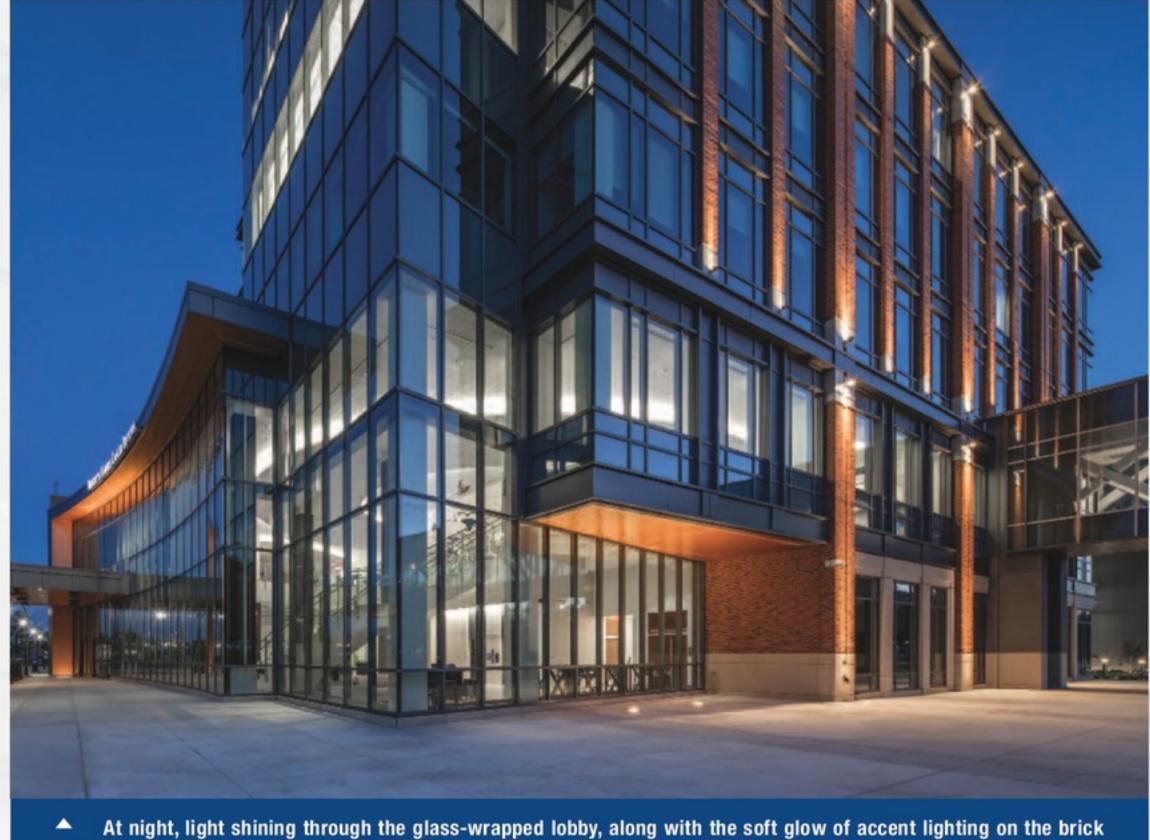
Standing in front of the lobby's DNA Wall during this virtual celebration, Dr. Kalkanis said the DNA Wall "is a symbol of the spirit of this pavilion and this team. It's created to signify the DNA strands that define us and are helping unlock answers to defeating cancer."

SmithGroup designed and Turner-KEO oversaw the construction of the DNA Walls located in the lobby and at the entrance of a specialty space called the Tumor Board room. Located near the pavilion's entrance to the skywalk, this collaborative hub accommodates 50 clinicians around a grand table and along perimeter bench

seating, while the room's sophisticated communications includes technology linking clinicians to colleagues across the globe for the benefit of patient care.

This nexus for leading-edge cancer care offers a clinical trials research program, retail and research pharmacies, and "some of the most advanced radiation therapy options available," said SmithGroup Associate Ed Pocock, Healthcare Planning Manager and Senior Project Manager. "The Henry Ford Cancer Institute was the first in the world to offer the ViewRay MRIdian Linac® at one of its facilities and now at the new cancer center." The instrument is a MRI-guided radiation therapy capable of precisely locating the cancer site prior to radiation treatment with a medical linear accelerator (LINAC).

This comprehensive cancer care facility offers oncology support services to strengthen patients physically emotionally. According to Pocock, the OncoStat Clinic is an urgent care facility exclusively dedicated to the needs of cancer patients, The Market offers lightfare and comfort food geared toward oncology patients' dietary needs, and in



columns and piers, turns the building into a shining beacon of hope. Photo Credit: Justin Maconochie Photography LLC

addition to this supportive environment, an Art Walk and Healing Arts Gallery eases the spirit.

Altogether, the Henry Ford Brigitte Harris Cancer Pavilion occupies 187,000 square feet of space, and "every square foot is designed to help defeat cancer," said Robert G. Riney, HFHS President, Healthcare Operations and Chief Operating Officer at the virtual celebration. At the event, Riney recognized the efforts of SmithGroup, Turner-KEO and the entire design and construction team. "They deserve a tremendous amount of gratitude for their dedication to helping make something that is truly unique and inspirational," Riney said. "They didn't just help create a building, they're creating hope."

The Spark: Mr. Mort Harris

It all began with a man named Mort Harris. Brigitte, his wife of 46 years, battled pancreatic cancer for two years and passed away in 2016. In memory and in honor of his wife, this successful businessman and generous philanthropist donated \$20 million to Henry Ford Health System for the new pavilion and another \$20 million to support precision medicine, brain cancer and pancreatic cancer programs.

Turner Senior Project Manager Charles Hornacek commented on meeting the building's main benefactor on the site: "Mort Harris was an amazing man. His dream was to make this building spectacular. His vision was unbelievable, and I believe the team did everything they possibly could to make it right for him and for cancer patients."

Passing away only a few months after the virtual celebration, the 101-year-old Mort Harris had a long history with Henry Ford Hospital. In fact, he grew up only a block away from the hospital and was a patient at the age of five, having fallen off the roof of his house in 1920s Detroit. Harris recounted this boyhood tale at the pavilion's groundbreaking. Wearing a Turner hardhat, Harris also attended the topping-off ceremony and afterwards began touring the site fairly regularly. "He was genuinely interested in the building,"

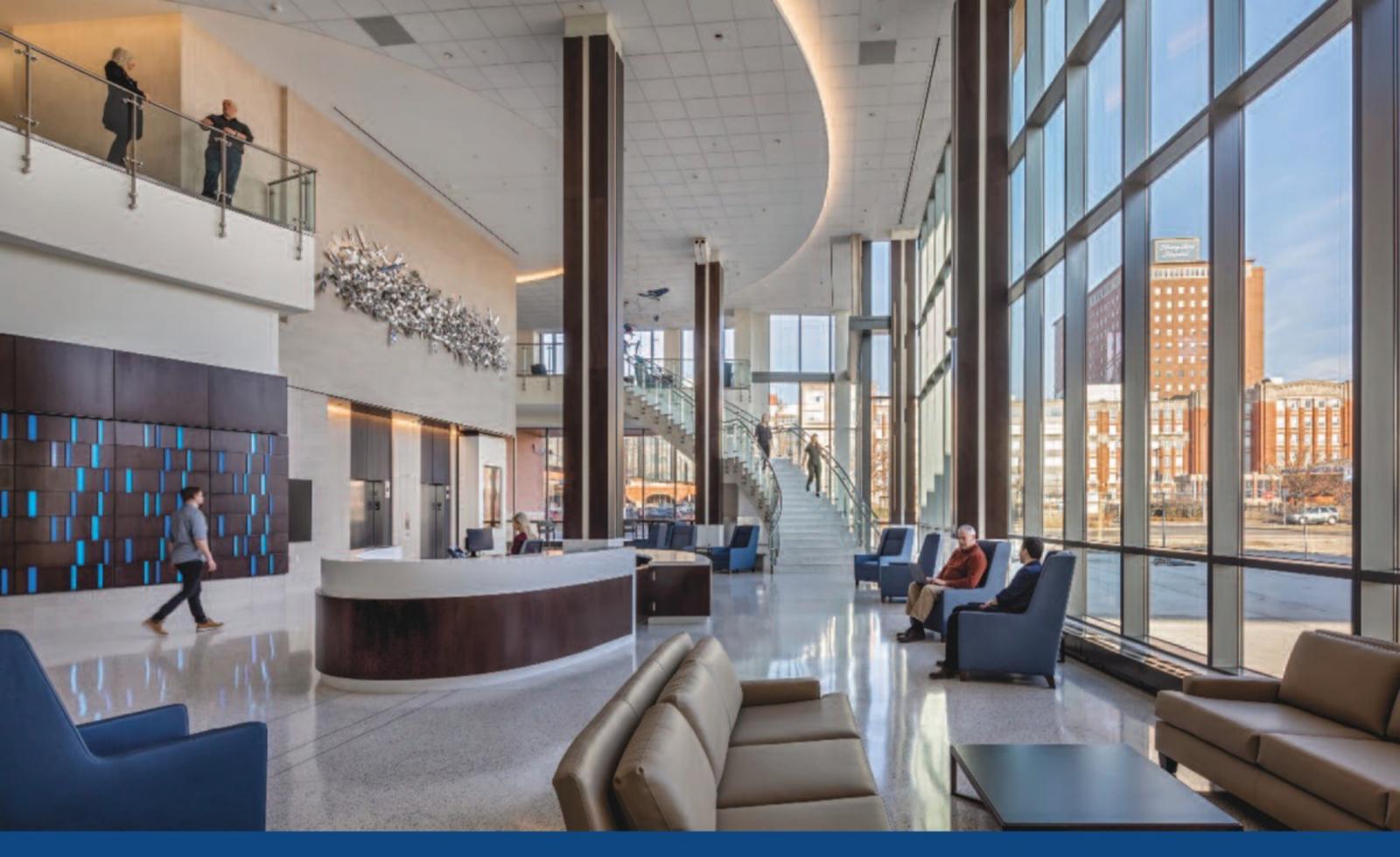
said Turner Project Executive Ron Dawson. "He would talk to the tradespeople on site who appreciated his site tours. He was inspirational to the entire team."

Mort Harris toured the building just prior to its opening. "It's one of the happiest things that has happened in my life," Harris said via video during the virtual celebration. "I was able to bring some happiness to the remembrance of my darling wife - my dear, wonderful Brigitte. But this marvelous facility is much larger than just my family. It's a gift for mankind. ... I'd like to say thank you to everyone who has joined me in this building. You have no idea how much thought and effort has been put into this structure."

The Right Team

Over four years in the making, the entire team poured their talents and energies into creating this comprehensive, world-class cancer center built from the ground up. HFHS selected SmithGroup as architect of record in February 2016 and Turner-KEO as construction manager in mid-2016. "We partnered with KEO & Associates, Inc.





The grand, light-filled lobby is a curvilinear sweep of space with a monumental stair, soaring wood-clad columns, and a signature element called the DNA Wall (left), expressing the pavilion's advances in precision medicine and oncology treatment. Views of the main hospital fill this grand volume through the lobby's glass-wrapped walls. Photo Credit: Justin Maconochie Photography LLC

because the company is a quality MBE contractor that we have worked with in the past," Dawson said. "The project gave KEO the opportunity to gain experience in the healthcare side of construction."

As a collective of firms with deep roots in Detroit, SmithGroup, Turner and KEO were natural choices. "The firms are based in Detroit, and all are committed to the resurgence of the city," Kenyon said.

SmithGroup brought a diverse team of minority- and women-owned businesses to the project, including SDG Associates, a Detroit firm responsible for the design of the architectural portion of the skywalk. SmithGroup worked with Grand Rapids-based Enviah, a women-owned enterprise that according to Enviah's website develops "ways to align built (healthcare) environments with operations by removing the barriers that work against staff success and patient satisfaction."

The Right Site

After over a century of growth, HFHS's existing campus had no room left for expansion. A five-acre parcel on the

emerging south campus offered a broad canvas space to build this comprehensive and collaborative care facility. "Clinicians were striving to bring all cancer care services together in one building so that they could collaborate better with one another and provide seamless care to the patient in all aspects," Kenyon said. "It allows them to provide genetic counseling, and to bring all of the oncologists, patient care-givers, and together researchers to provide personalized treatment planning in one building."

A new facility would more easily accommodate new approaches to cancer care. "The leadership of the Henry Ford Cancer Institute has been very forward-thinking on new methodologies and treatments and better ways to treat the entire person," Ringvelski said.

Design-wise, "since the pavilion offers a new way of thinking about cancer care, we had to rethink how to organize the building to best treat the patient," Pocock said. With its extensive national portfolio of cancer centers, SmithGroup brought an invaluable level of knowledge to the facility's planning and programming.

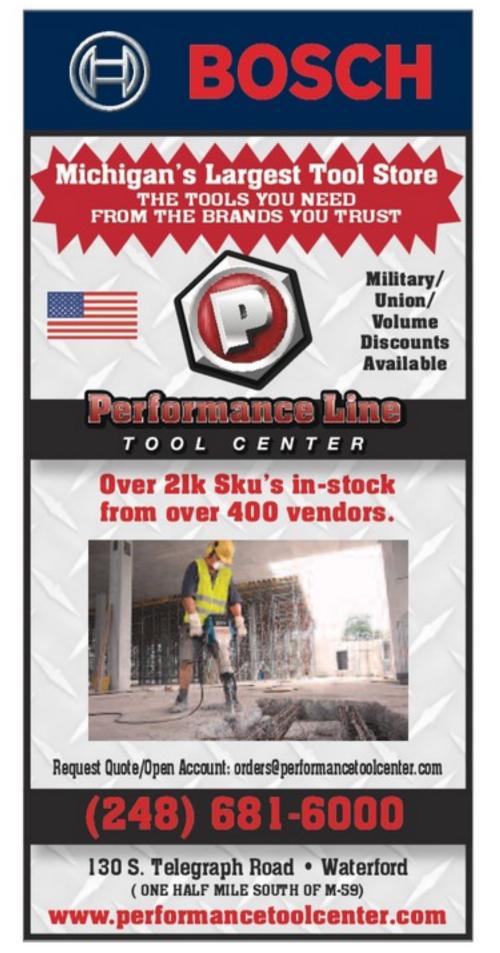
Following a Patient's Advice

As part of planning and programming, SmithGroup met with Henry Ford's medical team and with patient, family and survivor advisory groups over the course of four months. "We conducted visioning sessions and traced the pathway of the patient through their cancer journey to make sure we understood their needs," Pocock said.

The design fulfilled the patients' wish list for an outdoor rooftop terrace next to the infusion center, a weather-shielded connection from the parking deck to the building, and abundant natural light. Particularly in the lobby, "it was very important to patients that when they first walked into the facility that it was bathed in natural light," Kenyon said.

Patients, already navigating the stress and complexities of cancer, requested clear way-finding as well. SmithGroup designed the lobby as a curved sweep of space easily flowing into the curvilinear main corridor. In turn, the corridor offers a







A collaborative hub, called the Tumor Board room, accommodates 50 clinicians around a grand table and along perimeter bench seating. Sophisticated communication systems in the Tumor Board room include technology linking clinicians to colleagues across the globe. Photo Credit: Justin Maconochie

smooth pathway leading directly from the lobby to radiation oncology. "By making a space curvilinear, it helps people intuitively understand where they need to go," Pocock said, "The main corridor starts as a wide funnel and then narrows to a 12foot-wide corridor as it nears radiation oncology. For ease of navigation, the elevators open directly to patient check-in on each floor."

For patient ease, SmithGroup designed a combination exam and consultation space called a care room. Larger than a traditional exam room, the care room includes separate zones for the patient and family to accommodate privacy during the exam. Each care room has floor-to-ceiling windows and a comfortable patient chair used during consultations; the chair folds out into an exam table when necessary.

SmithGroup provided generous levels of natural light and clinical furnishings with a hospitality appearance and feel in the care rooms and in all patient spaces occupied for a protracted period of time. "We wanted people to feel comfortable and for the furnishings to help create a very elegant space," Kenyon said.

SmithGroup designed a patient-centric layout for the infusion center. "We created neighborhoods of six to seven people in a V or wedge shape," Pocock said. "The nurse, sitting in the narrow part of the

wedge, has a direct sight line to patients; the patients can be seen by the clinical staff and have views through the windows to the outdoor terrace."

The infusion center accommodates both individual privacy and community with a combination of enclosed rooms and open bays. In the open bays, patients can draw the curtain if fatigued or leave the curtain open to enjoy the support of fellow patients. "Patients have their infusion every time with the same group of people, and they often start forming relationships and support groups," Ringvelski said.

Overall, Pocock said the infusion center programming includes the outdoor terrace to the north and the extensive clinical and research pharmacy that helps develop each patient's individual chemotherapy treatment due south.

Managing the Budget

During planning and design, Turner-KEO "worked closely with HFHS, SmithGroup, estimating group and the our subcontractors to build the project to the desired budget," Dawson said. (Total project cost is confidential.)

Three measures proved significant:

· Metal panels replaced much of the glass on the building's less visible south face. "The building is an example of how one

- can still provide natural light but in an affordable way," Pocock said.
- Gorgeous blue-speckled terrazzo flooring enlivens the lobby while tile or quality sheet good materials cover the first and second levels.
- In an innovative approach to the mechanical system, "we have three very specialized DX (direct expansion) airconditioning units that allowed us to do more for the money while meeting all of the building's HVAC needs," Pocock said. "The units were placed on the roof instead of using floor space, which would have cost much more money."

Given these and other cost-control measures, "we were able to build more than we originally thought we could build," Pocock said. Added scope included the first-floor café space and building out shell space for more administrative and research offices on the sixth floor. These offices gave Henry Ford Cancer Institute the ability to house more specialties in the pavilion, aiding in the "condensing of operations from disparate locations, either from within our hospitals or from the main hospital, into one building," Ringvelski added.

Laying the Groundwork

Turner-KEO worked collaboratively with HFHS and SmithGroup throughout design and construction, beginning with Phase I infrastructure and pad-ready work. In Phase I, collaboration resulted in a costeffective solution for the basement's shoring or retention system. "The team evaluated the different shoring systems for the basement and chose auger cast piles," Hornacek said.

Phase I design began early to expedite the schedule. "It allowed us to take advantage of the good weather," Hornacek said. Phase I work spanned from April to October 2017 and included removal of the "existing infrastructure, including the roads, underground utilities, a few trees and some buildings," Hornacek said. "We then realigned the roads and installed new underground utilities, prepped the pad for the parking structure and cancer center, and excavated the basement."

Turner-KEO's scope involved only demolition and underground utilities on the five-acre parcel, while HFHS coordinated the actual placement of the road pavement and the demolition and underground utilities for the remainder of the south campus.

For its part, Turner-KEO installed "new primary electrical from the nearby DTE substation, which now services the cancer center, parking structure and site lighting on the roads," Hornacek said. "All new sanitary, storm, gas and other types of utilities are now underneath the new realigned roads."

Turner-KEO launched caisson drilling for the cancer center and parking structure in November 2017. Beforehand, HFHS enlisted the services of Testing Engineers & Consultants to conduct an early investigation of soil conditions. "They drilled a significant amount of soil borings to establish the true conditions on the site and surrounding the site," Hornacek said. "In some instances, artesian water conditions were found about 150 feet down."

The parking structure and the building's three-story section both rest on caissons, or drilled piers, some extending 145 feet in depth. "The depth of the caissons varies, but that early survey and analysis helped us understand the true water conditions past that point," Hornacek said. "This helped us avoid spending a great deal of money on artesian conditions."

For efficiency, Turner-KEO oversaw caisson placement on both the parking structure and the three-story building section at the same time using two separate caisson rigs to expedite the schedule. In total, Rohrscheib Sons Caissons, Inc., New Hudson, placed over 160 caissons.

The caissons will accommodate the future expansion of the three-story section. "It's also a friction design," Hornacek added. "The caissons require a certain depth, because in addition to bearing on the bottom to support the load of the building, the caissons have to have so much bearing on the side of the caissons themselves. The precast concrete parking deck has caissons of different diameters and different spacings to accommodate the load of the cars and the weight of the precast concrete structure itself."



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Hardman Construction, Ludington, installed the retaining walls, or shoring, for the six-story tower, including the drilling and grouting of the auger cast piles, as well as "the shoring that interlocks into the system around the perimeter," Hornacek said.

The six-story tower rests on a three-footthick concrete mat foundation. The mat foundation was placed in three different pours to cover a building footprint roughly measuring 160 x 240 feet. "SmithGroup helped us develop a method to where we could place three separate pours versus one pour, resulting in two construction joints in the mat slab," Hornacek said.

Specialty Construction

The team wasn't finished with the intricacies of concrete. As determined by a hospital physicist, the four linear accelerator (LINAC) rooms in radiation oncology called for three-foot-thick concrete walls and ceiling structures. "Sometimes the room has six feet of concrete in areas that are in the direct path of the LINAC's laser-like beam," Dawson said. The first-floor LINAC rooms bear on substantial spread footings and are located in the west end of the three-story portion a section without a basement.

High-Dose Radiation (HDR) therapy requires a room with lead block walls. "Lead block is stacked between the steel." Dawson said. "It was quite incredible. They actually ran the lead block across the ceiling as well." NELCO Worldwide, a specialty contractor based in Burlington, Massachusetts, engineered, fabricated and installed the radiation shielding for the walls, doors and ceilings.

According to Dawson, the LINAC rooms have lead shielding installed inside of large specialty steel doors, along with special block-outs in the floors that make it possible to run all the electrical cables and the control equipment from the LINAC room to the technician's adjacent control room. Building Information Modeling (BIM) was used to plot the installation of mechanical systems in the LINAC, MRI and CT rooms and throughout much of the building. "The building has a tremendous amount of mechanical systems," Hornacek said. "In these specialty rooms, we used 3D modeling not just above the ceilings but actually in wall rough-ins. Coordinating

these mechanical components and identifying how they are actually placed within the wall in regards to rough-ins helps the trades expedite the work and ensure it is correct for the vendors."

Expediting the Schedule

Turner's planning and supply chain management expedited the building's critical path mechanical systems. "The release of an early mechanical package helped us to expedite the purchase and procurement of the large mechanical and electrical equipment," Hornacek said.

The large equipment was slated for installation in the basement, meaning "it had to be delivered early in order to close up the building," Dawson added. "Large rooftop air-handling units needed to be on site early in construction because a massive crane was needed to lift the units in place. Bringing such a sizeable crane to the site later in the job would have been an issue."

Turner used SourceBlue to purchase these large mechanical and electrical components "directly from the manufacturers," Hornacek said. "This expedited submittals and deliveries, and in turn helped the subcontractors expedite installation."

The same attention to expediting the schedule drove structural installation. "We initiated the precast in the parking structure first, and progressed to the cancer center's steel framing before building the bridge last," Hornacek said. "Getting a jumpstart on the precast concrete parking structure while we did our engineering for the trade work and got the design packages out for the cancer center was an efficient way of scheduling the work."

In building the 420-foot-long span of the Nancy Vlasic Skywalk, Turner-KEO arranged a weekend shutdown of West Grand Boulevard with the State of Michigan to erect steel in three sections. As the last step, installing the glass enclosure and the roof called for the temporary closing of two lanes of this major thoroughfare in the New Center area.

Dynamic Massing

Varied massing and a diverse façade create a dynamic but demanding building envelope and exterior façade. Rather than a uniform box, the building is a layered structure of different heights and a varied interplay of recessed, projecting and offset sections. On the east, a recessed section, clad in glass and a row of brick columns, rises directly above the vegetated roof of a lower building tier housing the grand lobby. The pure glass curtain wall of this tier and the main east façade turns the six-story building into an illuminated tower of light. "The building as a beacon of light begins

on the lobby side but translates all the way through the building," Pocock said.

Along West Grand Boulevard, the tower and the three-story section each have a projecting layer of brick columns and glass set in a broader glass frame, creating a double-layered façade. On the tower, the projection and its row of brick columns is set in the center of the main glass façade. Adding further complexity to this varied





The infusion center accommodates both individual privacy and community with a combination of enclosed rooms and open bays. Photo Credit: Justin Maconochie Photography LLC

shell, the uppermost level of the tower's main glass façade is slightly inflected, creating a concave, V-shaped section capped by a metal brow. The lower building is formed of two offset rectangles; the rectangle with the procession of brick piers edges further west than the other to create

a platform for the outdoor rooftop terrace.

The building's multiplicity of layers is part of "a beautiful design that is also dynamic from within because many spaces project slightly out from the rest of the building and offer outstanding views," Ringvelski said. "The building's variations give the

architecture more energy and some movement as opposed to just having continual rectilinear spaces."

Both lower façades are pedestrianfriendly and urban-centric. Brick piers and precast details at street-level weave the new building into the urban fabric of the New Center area. "We wanted the building to have a streetscape one would expect in a city," Pocock said. "That is why it has a relatively short sidewalk close to West Grand Boulevard versus a suburban development pushed away from the street."

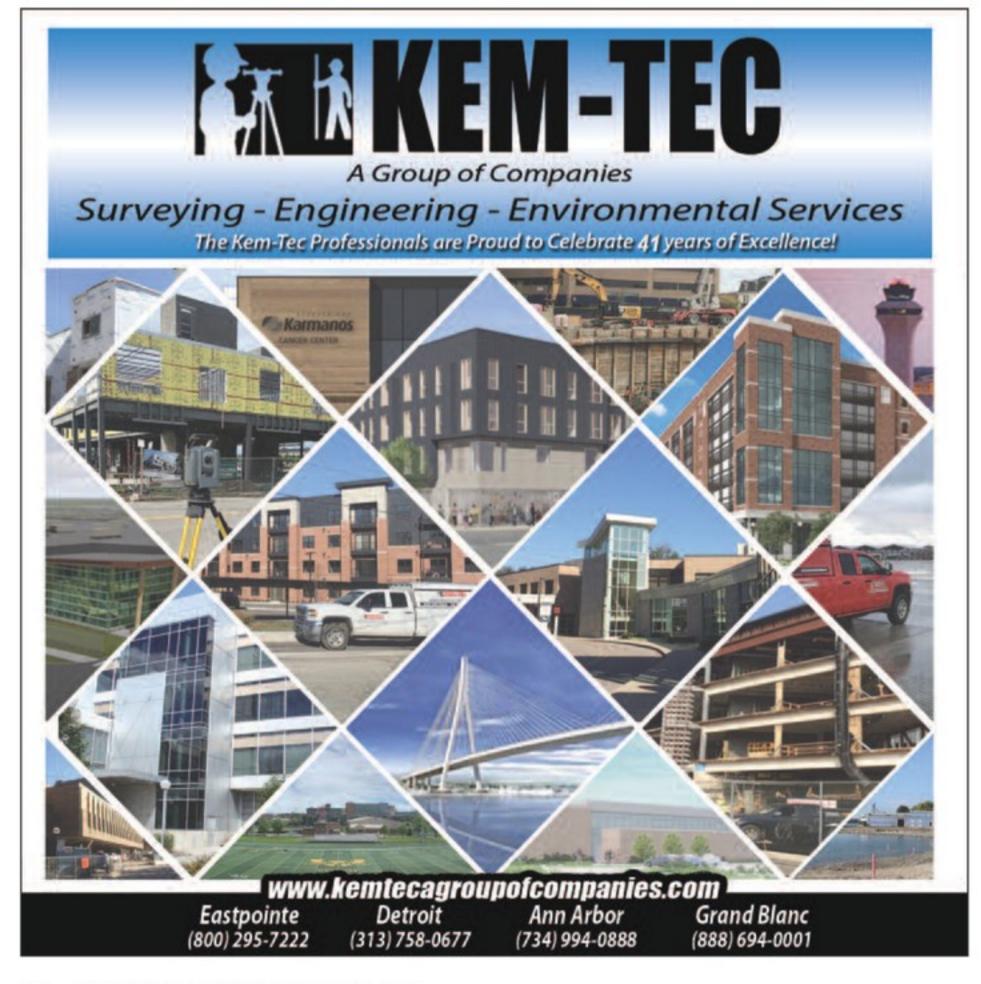
Street-level building details are designed to a human scale. A landscaped pocket park with a seating area is even tucked in between the taller and shorter portions of the pavilion, adding to the people-friendly streetscape.

A Diverse Facade

The building's exterior façade is a weaving together of unitized glass, metal panels, and precast capitals on the lower and metal capitals on the upper levels of the tower's brick columns. This diverse façade called for extra vigilance in detailing and waterproofing every material junction to prevent moisture migration. "Our Building Technology Studio spent a great deal of time making sure that moisture migration and the vapor barrier were addressed in all of these different systems," Pocock said, "and in determining how these systems had to relate to one another to keep water out."

Given the building's layering and diverse materials, Kenyon said mockups had to be created for many different conditions and complex details. According to Pocock, "these mock-ups showed contractors how to execute the details correctly before wide-scale installation. It was a proactive approach to making sure a complicated system went together well, and the Turner team was very instrumental in making sure that happened."

After receiving shop drawings, group meetings were held to resolve lingering issues and questions. "It was a very integrated process throughout design and construction, and the same applied to the complex roofing details," Pocock added. The building's multiple roofing systems included the two garden roofs and the roofing details for the two projections that



"pushed" the brick columns to the forefront of the façade.

Dawson provided a sense of the sheer complexity of building this diverse façade: "The building has so many different materials and types of waterproofing, ranging from sheet waterproofing behind the masonry and sealants within the glazing. In the most challenging areas where these materials all come together, we needed to make sure that we were lapping and tying them in properly."

In identifying the most difficult area, Pocock and Dawson point to the area melding together the metal brow and the inflected curtain wall, along with the metal capitals and integrated accent lights. "Anytime a building has those types of undulations it makes it more challenging to build a water-tight facility, Dawson said. "We worked closely with the contractors to make sure all those intricacies were properly detailed."

Turner-KEO water-tested the entire façade. "A specialty inspector was up on a power lift with hoses and spray nozzles to water-test the building by simulating

different rain and bad weather patterns to find problems and correct them before we closed up the wall," Dawson said. "While not uncommon on projects, this one needed extra care because of its many intricacies."

Shop Assembly of a Monumental Stair

For interior construction, building the monumental stair was a massive scheduling and logistics feat in itself. "Since the stair has some very high-level quality finishes, such as terrazzo treads and stainless steel rail and glass, we worked very closely with our suppliers to assure deliveries were on time to make the schedule work," Hornacek said.

Having quite a large span and supported midway by a set of columns, the stairway ascends in a curve the full height of the lobby. Couturier Iron Craft, Inc., Comstock Park, actually built the steel for the stair in the company's shop before disassembling, transporting and re-assembling the stair in the lobby, all to ensure "everything fit the curve properly and met the right points," Dawson said. Artisan Tile, Inc., Brighton,

the terrazzo flooring contractor, even went to the Grand Rapids shop and fieldmeasured the stair treads.

The COVID-19 shutdown occurred during construction of the monumental stair and just as large-format tiles for the elevator shafts were slated for shipment from Italy. "We didn't think we were going to be able to get the material," Dawson said, "but they were able to load it on the ship, and it was delivered and installed."

Turner-KEO "righted the ship" of the project itself soon after the announcement of the COVID-19 shutdown. "Within a week, we created a safe, back-to-work plan that followed CDC guidelines," Hornacek said. "Work on this essential project began a week-and-a-half after the shutdown."

Building the DNA Walls

The DNA Walls cover curved wall sections in wood and a pattern of backlit acrylic glass panels. "We built at least three different mockups of that wall to find the exact size, spacing and colors of backlit acrylic glass," Dawson said.



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Larger than a traditional exam room, light-filled care rooms are combination exam and consultation spaces equipped with comfortable patient chairs that fold out into an exam table when necessary. Oncologists and other specialists come to the patient for examination or consultation rather than having the patient and their family members move from room to room during their stay. Photo Credit: Justin Maconochie Photography LLC

Once HFHS and SmithGroup approved the mockup, Nelson-Mill Company, the Southfield-based millwork contractor, built templates based on the curved walls.

"They took the curved templates back to their shop, matched special wood veneers and stain exactly to what the architects prescribed, and built the panels in the

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shop," Dawson said. "The architects came to the shop several times during fabrication. It was very challenging, and a great deal of effort was poured into those DNA Walls."

backlighting, "the millwork For contractor put the back panels in place and drew out on the wall exactly where each of the LED lights should go," Dawson said. "The electricians mounted them in those locations, the millwork contractor hung the front wood panels in place, and it all turned out beautifully."

SmithGroup designed these welldesigned and beautifully crafted DNA Walls as part of HFHS's rebranding effort across all of their cancer and ambulatory care facilities. The first installation was in a West Bloomfield Ambulatory facility, but it now reaches its full expression at the flagship Henry Ford Brigitte Harris Cancer Pavilion.

A Light-Filled Space

The parking deck, valet area or main entry all lead to the lobby, a grand light-filled volume with soaring wood-clad columns. The goal was to "align the interior architecture with the ideas of hope, confidence, healing, and innovation," Kenyon said. "The goal in the lobby is to create a space invigorated with activity, and the vision is to offer people a grandness of space to inspire confidence when patients and families come into the building."

The monumental stair, curving upward through the great height of the lobby, "reflects the cancer journey," Kenyon said. "Many times when patients first come to the building, they don't feel well enough to take the stairs; they automatically take the elevator. Hopefully, at the end of their treatment, they've gained strength, and it becomes a sort of emotional achievement to take the stairs."

A pendant sculpture of winged forms graces the upper levels of the monumental stair. "In the way that the monumental stair wraps around the suspended art piece, it helps to integrate the art program into the design," Ringvelski said. "Art is an important part of the healing process. We have commissioned art in the lobby and have formed a partnership with the Detroit Institute of Arts for a rotating gallery."

From ceiling to floor, the lobby details are as beautiful as the volume is grand. "The terrazzo floor is just spectacular," Ringvelski continued. "The flecks in the terrazzo floor are Henry Ford Blue in just the right amount. The team worked hard and created several different mockups to achieve this beautiful result."

In form, the lobby is based on a series of curves, beginning with the slight arc of the lower building's east face and extending to the monumental stair, the second-floor overlook, the ceiling soffits and the overall lobby itself. "I think one of the design features of the building was to soften the building by adding organic curves, and Henry Ford felt very strongly about that from the beginning," Pocock said.

The Healing Path

Now open, Henry Ford Brigitte Harris Pavilion Cancer showcases the tremendous effort poured into the building's well-planned design and quality construction, all for the benefit of cancer patients, families and survivors. The firstfloor houses ExCITE (Exercise and Cancer Integrative Therapy and Education), a space for exercise, acupuncture and massage. Other first-floor services include a retail pharmacy, a reflection room, The Market, and a multipurpose room that can host everything from nutrition education and training to yoga.

First-level clinical spaces include a convenient blood draw area adjacent to the OncoStat Clinic. The monumental stair, the lobby elevators, and the skywalk all lead to the easily accessible Tumor Board room. A cancer patient never walks alone as demonstrated in this collaborative hub outfitted with four 96-inch monitors for clinicians to share patient case information with experts from around the world. The large wood conference table's elliptical central opening mirrors the ellipse in the ceiling, and both ellipses incorporate hightech lighting and sound systems. According to Dawson, a hinge in the table grants access to the table's central opening and the extensive computer and IT equipment built unseen into the table itself.

The third-floor infusion center has a direct connection to the parking structure without having to navigate stairs or even elevators. Also on the third floor, unique mechanical systems service the Stem Cell Transplant & Cellular Therapy Clinic and the

Clinical Pharmacy & Investigational Drug Service. Turner-KEO oversaw installation, balancing and proper commissioning of mechanical systems capable of meeting "the positive/negative air pressure requirements and regulatory standards set for these areas," Hornacek said.

The Henry Ford Brigitte Harris Cancer Pavilion offers 14 different clinics and care rooms located on floors two through five. The fifth floor houses the precision medicine program and the clinical trials center, while the sixth floor is reserved for staff offices.

Turner-KEO delivered the building in late December 2020 and the doors of the Henry Ford Brigitte Harris Cancer Pavilion opened to patients in late January 2021. Many families have been touched by this disease, and Dawson's own family history inspired him to give the project his all. "I am extremely proud to have been a part of the project," Dawson said. "I lost my dad and sister to cancer, and I was inspired by their memory to try and do my absolute best.

I am very proud to be part of such a great

facility that is going to save thousands and thousands of lives. Working with all of the Henry Ford team members – the nurses, the doctors and the directors – and seeing how passionate they all are inspired us to try to do our best."

Mort Harris was deeply grateful for the entire team's efforts. "Mort Harris met a team member of ours on site just before the opening," Kenyon recalled. "He was so thrilled with the building and the facility, and said, 'This is exactly what I was hoping for."

This life-saving facility and the Henry Ford Cancer Institute's ability at the new Brigitte Harris Cancer Pavilion to deliver advanced precision medicine is exactly what an untold number of cancer patients and their families have been hoping for in their journey with this difficult disease. New advances promise to shed light on the fight for the cure, all available within this well-designed, beautifully crafted, and natural light-filled building in Detroit. ⊗

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