

THE NORTHVILLE HEALTH CENTER

A STATE-OF-THE-ART FACILITY IN A PREMIUM LOCATION

BY ROY T. JONES

PHOTOS COURTESY OF
CLAYTON STUDIO



From the intersection of Seven Mile and Haggerty Roads, sitting 32 feet above-grade, the highest elevation in Wayne County, one can easily view the new Northville Health Center. This major state-of-the-art ambulatory care center is positioned within the busy I-275 corridor. Accessibility and visibility is why the University of Michigan Health System chose this location for its facility to serve the western Wayne/southwest Oakland County communities. The architecture itself symbolizes the character and image desired by the University of Michigan: solid and progressive.

The Northville Health Center is a unique project on many different levels. To achieve the U of M's goal of a cost-efficient facility in a premium location, they took the approach of soliciting developer proposals for a long-term lease which would be evaluated based on preliminary architectural information, facility location and cost. They selected the team lead by Schostak Brothers, Livonia, and Hobbs + Black Architects, Ann Arbor, who presented a two-story, 100,000-square-foot medical center in Northville as part of a proposed multi-use development. The team then added the George W. Auch Company, Pontiac, as construction manager (CM)

◀ The new 100,000-square-foot Northville Health Center brings nine clinics together in one convenient, high-profile location.



▲ The architecture of the NHC symbolizes a solid and progressive image desired by the U of M.

based on the proposed staff's extensive experience planning and constructing ambulatory care centers, a track record of success in working with the owner's design professionals, and familiarity with building in the area.

The U of M will now have more presence in the Metro Detroit area by bringing nine clinics together in one convenient, high-profile location. The NHC clinics include: Pathology; Medical Procedures Clinic; Radiology (Including MRI); PTOT Medical Sports (Physical Therapy/Occupational Therapy); Muscular Skeletory; Adult Clinic; Women and Children's Clinic; Oncology Infusion; Ophthalmology; and two additional support spaces for Administration and Building Services.

The University had established the project completion date of April 11, 2014 at project inception; it was the team's job to allocate programming and planning, preconstruction, and construction time to meet this ultimate goal. The result was a 14-month construction duration for the building completion, which included a 40 percent higher-than-normal density of interior build-out and the owner's major FF&E (Furniture, Furnishings, and Equipment).

The project team, which included the University of Michigan, the developer/owner REIS-Northville, LLC represented by Schostak Brothers & Company, Inc., architect Hobbs & Black Associates, Inc., and the construction manager, George W. Auch Company, worked together seamlessly in meeting all project goals for schedule and budget. They satisfied quality and performance criteria for a facility which represented the initial phase of a multi-phase site.

In order for this project to be a success, the team had to meet an aggressive construction budget established with the use of historical data for commercial projects. They included non-commercial systems such as a roof-mounted mechanical penthouse in the project scope.

Bumler Mechanical, Inc., Sterling Heights, was contracted by Auch Company to provide Mechanical HVAC and temperature controls installation for the facility. The work scope included the installation of multiple Mcquay Rooftop units to provide cooling of the facility. The Modular Boiler Penthouse

provided heating of the building by using three Lochinvar boilers and two domestic hot water heaters. The Modular Boiler Penthouse was manufactured by TMI Climate Solutions, Holly. The penthouse arrived on the jobsite assembled with complete HVAC equipment, piping, plumbing and electrical connections. This allowed for reduced construction time on the jobsite.

With the arrival of the penthouse near the completion of the project, Bumler was able to focus on the large scope of work within the building which included HVAC ductwork, HVAC heating piping, HVAC insulation, temperature controls and unitary equipment. The MRI room is conditioned via the Roof Top Units (RTUs). Due to the unique requirements of the MRI room, a dedicated steam generator and humidifier was installed to provide proper humidity levels for the MRI equipment. Additionally, the MRI equipment required supplemental cooling that is typically not satisfied by the building's RTU'. A dedicated chiller was installed to provide MRI equipment cooling.

Bumler Mechanical provided complete Mechanical HVAC Building Information Modeling (BIM) for the HVAC systems. According to Randy Pagel, president of Bumler, "Participating in BIM Modeling of the building systems allowed for reduced construction time by limiting the conflicts that typically occur during the installation process. Resolving these conflicts during the engineering/design phase greatly reduced the amount of work stoppages. This allowed our tradespeople to focus on installing quality work in the constraints of the construction schedule."

The project team also needed to develop the 51-acre site to accommodate the final development of the 11-acre site used for the ambulatory care center. The team was responsible for phasing construction of site infrastructure to accommodate future installation of systems which would serve future development not yet defined. The team was in constant communication with County and Township agencies on roadway, right-of-way and signal modifications near one of the busiest intersections in the area,

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taking into consideration the future development along with immediate needs.

PROJECT TEAM SUCCESSES

The project team met the budgetary goals required for project feasibility which made possible the construction of a major project at a time of depressed construction activity. The forward planning accommodated a complex multi-phased site development approach. Also, the combined efforts of the design team and construction manager resulted in less than 115 RFIs (Request for Information) and usage of less than one percent of construction contingency. Completing the work ahead of schedule allowed for the installation of the tenant's (The U of M) FF & E (Furniture, Furnishings and Equipment), including imaging and laboratory equipment, within the original duration. The team also constructed the project with a very high degree of safety, involving team members at every level.

The site for the building was not the typical limited scope pad ready site, but instead required 40+ acres initial construction site work as the first phase of the overall 82-acre, 500,000-square-foot Northville Park Place Mixed Use Development by REIS-Northville, LLC. The 40+ acres required significant clearing, grading, utility, road work and landscaping to accommodate not only the Northville Health Center's 10-acre site, but facilitated initial site construction towards an 80,000-square-foot retail development phase. According to David Johns, vice president of development with Schostak Brothers, "The Northville Health Center project achieved early success when the initial planning, designing towards a competitive MOB (Medical Office Building) project cost limitation, estimation/bidding, and permitting all went well, and Auch Company guided our team towards early bid packages and trade coordination to start all aspects of construction

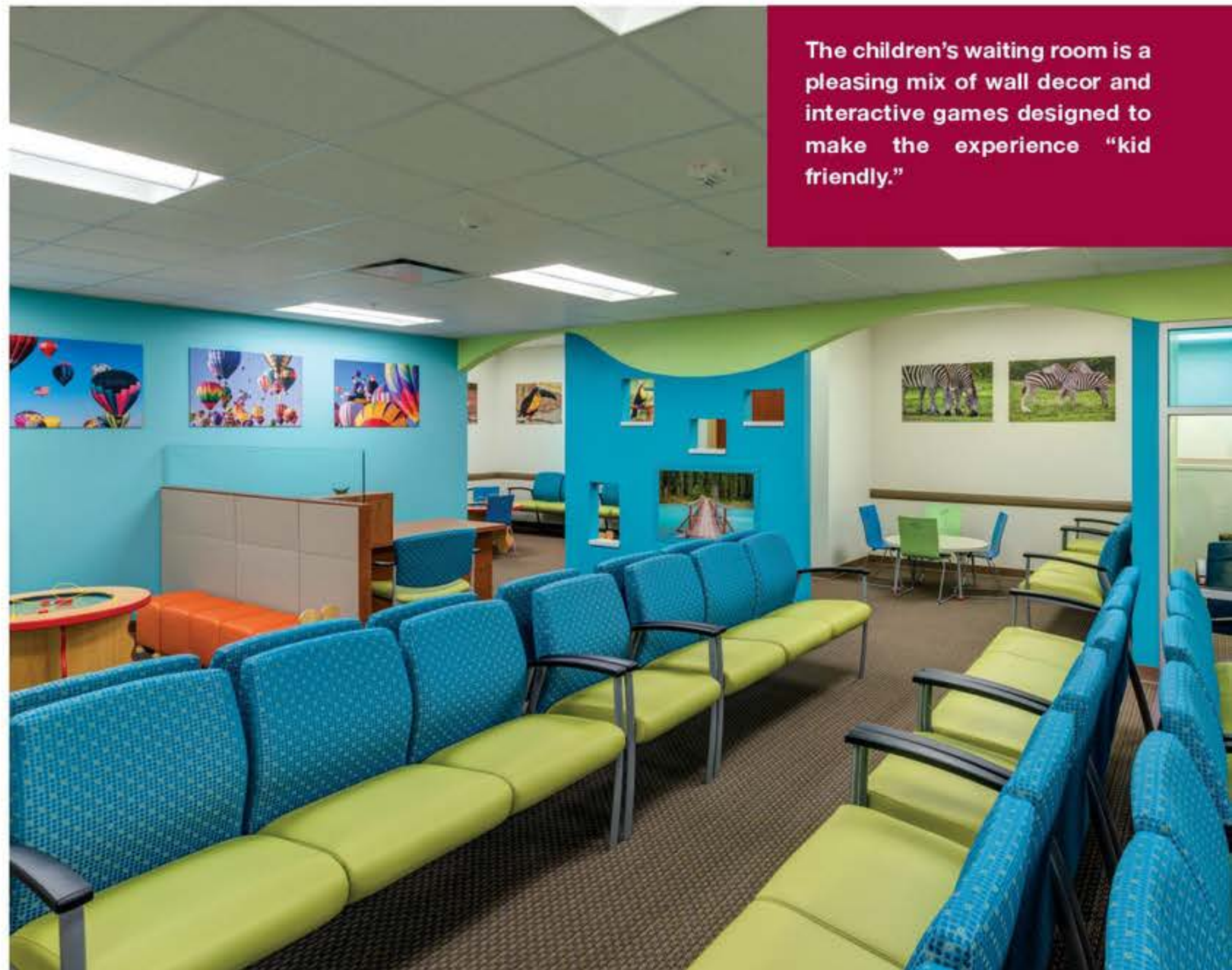
on time." He went on to say, "Our building was weather-tight in less than nine months, and all major site work was completed by fall 2013, just as Auch promised it would be and before winter arrived. All this was critical to deliver the project on time and honoring our team commitments."

PROJECT CHALLENGES

Virtually all building projects have the typical challenges of schedule and budget along with variables associated with organizing the skills and efforts of an infinite combination of professionals and trade contractors who ultimately comprise the project team. What was unique about the Northville Health Center was the manner in which the tenant, developer, design professionals and construction manager all worked together to solve competing priorities. In every case, value was maximized for the project and the results were that each party categorized Northville Health Center as an outstandingly successful project. This approach avoided

at least 60 to 90 days and \$100k to \$150k from potential rework delays and costs.

Denn-Co Construction, Inc., Detroit, worked with Auch Company on the initial budget submittals for the architectural finishes involved on the interior and exterior of the building. Following the bidding process, they were awarded the interior architectural finishes packages of BP #2 which consisted of the finish carpentry and millwork, interior metal framing and drywall, acoustical ceilings and wall panels, along with the installation-only packages of the general contractor which provided doors, frames and hardware, and owner-furnished items. Utilizing various local suppliers for their metal framing/drywall/acoustic materials, along with numerous specialty suppliers from around the country, Denn-Co submitted their bid package materials for approval from the architect/owner prior to material procurement. Key suppliers of some of the specialty items included Strata Design, Traverse City, for the architectural



The children's waiting room is a pleasing mix of wall decor and interactive games designed to make the experience "kid friendly."

millwork; InPro Corp., Muskego, WI, for the wall protection package; C-S Group, Newark, NJ, for curtain tracks; Plasterform, Mississauga, Ontario, Canada for the GFRG columns and PRS with the stainless.

According to Tom Moore, project manager for Denn-Co Construction, "Overall it was a very rewarding project. Working with Auch Company is always a very positive and professional experience. My field personnel did a great job maintaining the schedule, providing quality craftsmanship, and communicating with the Auch supervision on the construction coordination. The building finishes on both the interior and exterior are very pleasant to view and we hope the building's end-user is as proud as we are."

The development team then focused on the U of M's desire to leverage their new partner's skill and experience in delivering a

project which utilized a commercial approach in lieu of their current paradigm of institutional standards. U of M provided the budget and schedule criteria for the project; the development team prepared a detailed planning schedule which identified milestones for design, estimating and GMP approvals to achieve these goals. All parties participated in the preconstruction meetings which considered architectural and M/E/P systems that when packaged as a whole met the University's stringent quality and system performance standards, and the project's budget constraints. The high level of cooperation and compliance with the team's planning schedule allowed for decisions that supported the team in meeting all project goals. This cooperative effort avoided potential schedule delays and additional project cost.

RIGHT-OF-WAY WORK

During the project's preconstruction phase, the authorities having jurisdiction defined the need to create roadway widening and new signalization. Auch, the CM, worked with the developer to establish a separate project approach to perform work in a manner that supported the overall project schedule. The CM had a professional on staff with significant experience in intersection widening and signalization. They planned for and completed work near one of the county's most congested intersections safely and efficiently, while supporting building project access and logistics.

Due to the CM having qualified personnel, savings to the developer included not hiring a separate contractor to perform this work, avoiding a potential delay of 30 days (time required to award separate package) and \$50k - \$75k in cost.



The Oncology and Infusion Center is designed to provide a more comfortable setting for chemotherapy patients.

SENSITIVITY TO THE ENVIRONMENT AND SURROUNDINGS

The Northville Health Center project, in conjunction with the overall development of the mixed-use site, required the clearing of a large wooded area. In any situation, this was a sensitive activity which required clear communication with the community and the authorities having jurisdiction. The developer ensured that the design of the project included environmental features that would be attractive to the public. This included green spaces, extensive use of trees, plantings and landscaping, public walking and bicycle tracks, and water features including waterfalls and fountains.

Other examples of sensitivity to the environment included: the implementation of special measures to ensure that dust was controlled on the 50-acre site including no tracking of material from the site-entered public roads and right-of-ways (this resulted in no complaints from the public); the harvesting of on-site high quality topsoil for reuse on other area projects; the shredding of all timber and lumber for use as landscape mulch; all soil tillings were utilized on-site for landscaping and the construction of berms; all open areas not built upon or formally landscaped were seeded with meadow mix and wildflowers, creating a very natural habitat for small animals; and construction waste was voluntarily sorted and recycled allowing for the reuse of material such as metal and gypsum, which avoided deposit into local landfills.

CONTRIBUTION TO THE COMMUNITY

This project generated significant interest in the community due to its prominent location and its high profile tenant. Its recognition was heightened by the period of relatively high unemployment in the construction trades, a long period of drought in the development of new mixed-use projects, and the bringing of new permanent jobs to the area. This was great, positive news both in regards to the project itself, as well as an indication that the Michigan economy was making the turn.

For the construction impact, the project employed on average 50 to 60 trades-

personnel on a daily basis during the 14 month construction time, which resulted in nearly 200,000 man hours worked, contributing directly to the local economy. This does not include hours worked in area shops and offices.

The facility itself will not only bring high-quality healthcare closer to the community

in a new state-of-the-art facility, but it will house more than 100 physicians who will maintain hours in the building along with more than 200 full time jobs.

The development team also reached out to young construction professionals by opening up the facility as a teaching tool for students either looking to join the

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construction industry or to further develop professionally through continuing education.

Auch Company led building tours and hosted presentations to groups from various colleges and universities attending Student Contractor Awareness Night at the nearby Schoolcraft College in Livonia. Auch's project engineers also hosted team meetings at the site, reviewing the building systems and construction processes implemented on this large-scale project. They discussed lessons learned as part of total quality improvement.

There was also an important contribution to public safety. By working closely with its neighbor, Schoolcraft College, the developer offered to pay for the realignment of the college's Haggerty Road entrance, improving traffic flow resulting from the new development. Part of the new intersection construction was the addition of a traffic control signal. This infrastructure addition is greatly contributing to the safety of students, staff and visitors driving to and from the busy Schoolcraft College campus.

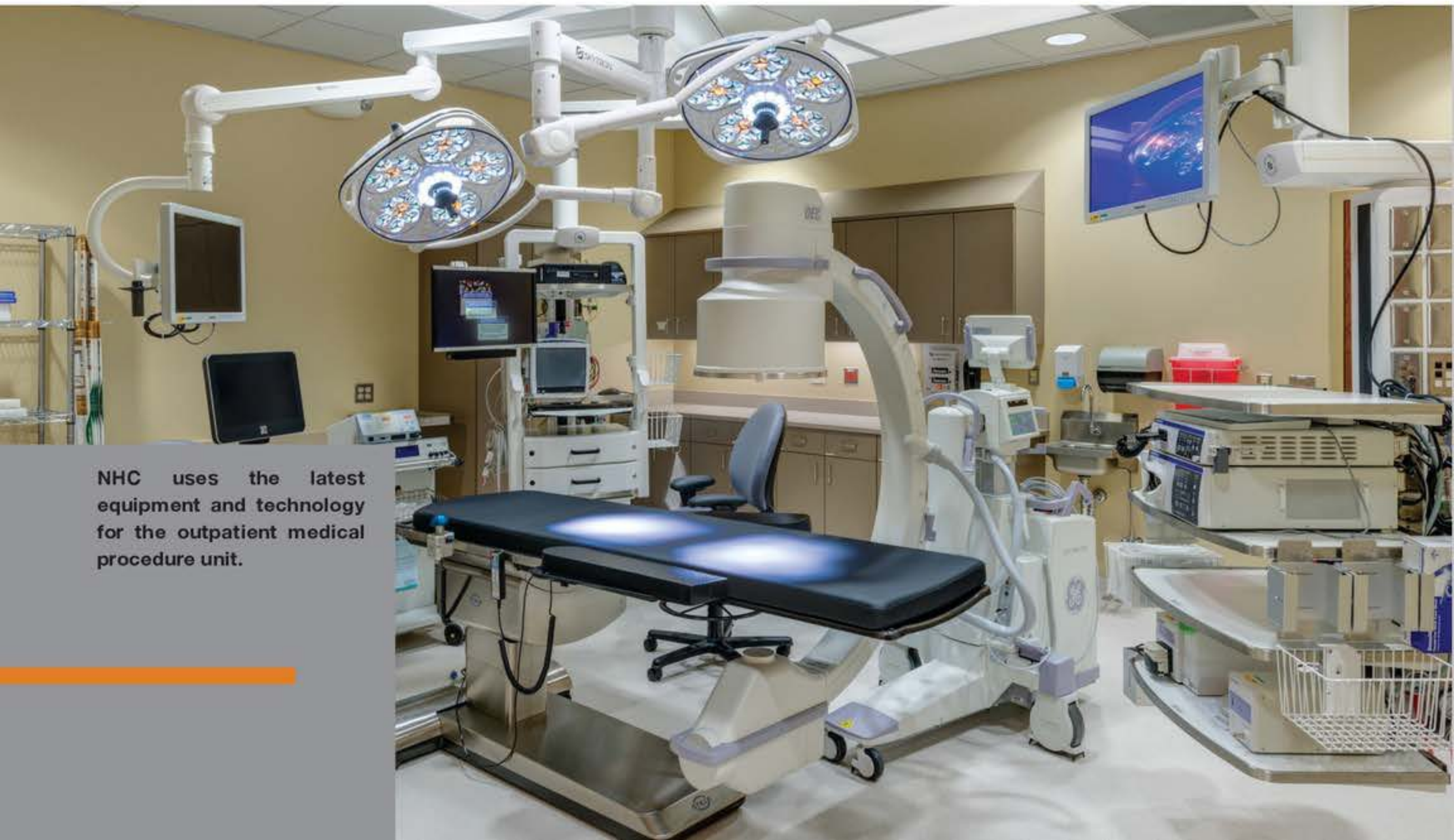
EXCEPTIONAL SERVICE

The success of this project exemplified the skills and talents of a multitude of professionals and trades-workers across every discipline. According to Jim Chernosky, project manager for Auch Company, "When properly executed, a high-profile project is invaluable in promoting the construction industry in the eyes of the public. The relationship with Northville Township and the building team was greatly enhanced by their experience of promises kept. Schoolcraft College is benefiting from both the opportunities for its

students, the proximity of important services and future businesses. The industry as a whole is benefiting by showcasing the Northville Health Center project and using it to promote careers in construction." He went on to say, "The project team understands the importance of making safety everyone's business so that the trades-workers understand their individual responsibility, as well as creating a culture of safety where people look out for one another. This approach resulted in a very safe project."

Another component of the team's safety program was joining together with MIOSHA on "Take a Stand Day." This program sheds light on MIOSHA's enforcement of construction safety and creates a better understanding of the safety standards and how they are intended to ensure public safety. The informal review and inspections along with networking opportunities with MIOSHA personnel continues to have a very positive effect on project safety and awareness.

John Barker, executive vice president of Hobbs & Black Architects, sums up the whole project by saying, "This team led by David Johns at Schostak Brothers & Company, the University of Michigan's AEC department, David Williams and Jim Chernosky of the Auch Company, along with Tom Dillenbeck of Hobbs & Black, worked together as one entity to deliver the highest quality building available as a response to the University's needs and within the strict budget available. The efforts of the Auch Company to provide instant estimating throughout the process were only bettered by an amazing quality of construction. Their contribution provided all team members with much pride of ownership in the project." ♡



NHC uses the latest equipment and technology for the outpatient medical procedure unit.