



Knoll Workplace Research

Project Case Study: *Healthcare*

St. Francis Cancer Center at Millenium – Greenville, SC

Bon Secours St. Francis Health System of Greenville, South Carolina built its out-patient cancer facility to offer patients comprehensive care—from diagnostics to treatment—in a space designed just for them. This state-of-the-art destination not only supports patients, but also serves as a community center for family members and caregivers to gather. St. Francis focused on patient comfort, a serene ambience and efficient staff workspaces, while using sustainable materials to create a lasting look. They chose architectural firm McMillan Pazdan Smith and Knoll, along with interior space provider CBI, to bring their vision into reality.

Knoll

PROJECT OVERVIEW

DRIVERS

- + Create a state-of-the-art, comprehensive cancer treatment center
- + Design using the latest research on how clinic settings impact treatment outcomes
- + Bring multidisciplinary services to patients under a single roof
- + Foster a highly specialized, multidisciplinary, team-based clinical care model
- + Focus on an optimistic patient experience that empowers the individual

TACTICS

- + Evidence-based design applied studies that examined the impact of healthcare design on patient outcomes
- + A range of care settings allows patient choice
- + Products were chosen for their demonstrated performance in a healthcare environment
- + Power options support both current demands and accommodate technological advances

OUTCOMES

- + Enriched the patient experience
- + Consolidated existing oncology services under a single roof while adding services
- + Enhanced patient-staff communication
- + Boosted staff-staff collaboration and staff satisfaction
- + Improved clinical throughput (measured in shorter waiting times)
- + Higher level of sustainability
- + Better indoor air quality

- + Increased privacy
- + Greater flexibility

SCOPE

- + 65,000 square feet
 - 51 infusion spaces
 - 34 personal workstations
 - 23 private offices
 - 11 schedulers
 - 10 nurse stations
 - 8 registration/finance offices
 - 8 navigator stations
 - 6 waiting areas
- + 325-400 total number of occupants: 125-150 staff, 200-250 patients

PRODUCTS

- + Systems Furniture: Reff Profiles™, Dividends Horizon®
- + Task Seating: Generation by Knoll®, ReGeneration by Knoll®
- + Side Seating: MultiGeneration by Knoll®, Moment™
- + Lounge Seating: Saarinen Womb Chair & Ottoman, Bertoia Side Chair, Maya Lin Stones, Architecture & Associés Lounge Collection
- + Technology & Power: Antenna® Workspaces Media Enclave, Interpole™
- + Accessories: Scribe® Mobile Markerboard
- + Textiles: Beacon, Belize, Ferry, FilzFelt, Framework, Versatility, Vibe, Sinclair, Stacks, Whip, Zipline

YEAR COMPLETED

- + 2014

Drivers

State-of-the-Art, Comprehensive Treatment in One Space

Before the construction of the new cancer center, St. Francis' patients would often travel between three different campuses, and multiple locations on each campus, to receive treatment. The leadership at St. Francis wanted to create an easy flow between radiation oncology, medical oncology and infusion for patients. They also wanted spaces for friends and family to gather and rest, so they included plans for community rooms, spacious waiting areas, a chapel and a health-food cafe. And, to make sure all of patients' needs were met, they included an on-site pharmacy and a retail boutique with customized services such as wig-fitting.

Finally, in the new center, St. Francis filled a gap in its cancer treatment options by implementing radiation oncology services. They wanted to ensure that any patient, with any form of cancer, could receive comprehensive care at the St. Francis Cancer Center.

An Efficient Workplace for Multiple Teams

As they brought all staff under one roof for the first time, from medical oncology nurses to administrative executives, St. Francis took advantage of design options for greater efficiency and collaboration. St. Francis reviewed studies on treatment spaces' effect on patient outcomes, such as the importance of providing patients natural light, as well as options for comfort and privacy. St. Francis also leaned on its design team to optimize for patient-staff and staff-staff communication.

Sustainable Materials and a Calming Atmosphere

St. Francis wanted a both durable and beautiful setting. With hundreds of employees, patients and caregivers expected in the center each day, St. Francis knew the floors, fabrics and countertops would receive heavy use.

In addition to planning for wear and tear, St. Francis was determined to create an inspiring and soothing atmosphere. They relied on the Knoll track record of success designing for high-use, attractive healthcare spaces. "We wanted to create a patient-centered environment that was healing and felt more spa-like than clinical," says St. Francis Administrative Director of Oncology Services Terra Dillard.



The sweeping, curved entrance to St. Francis Cancer Center creates a soothing, nature-inspired welcome for visitors, featuring a tree-lined seating area and calming colors.



Top Left: An attractive, light-filled lounge sits under stairs to the second floor right at the entrance to the St. Francis Cancer Center. Soothing natural colors and a modern, uncluttered space offer serenity to visitors. Featured: Saarinen Womb Chairs

Top Right: Visitors awaiting pick-up near the entrance of the building can relax in a comfortable seating area. The green fabric on the chairs and flowers on the side table pick up the grasses outside the window. Featured: Saarinen Womb Chairs, Saarinen Pedestal Side Tables

Bottom: Large windows in a patient waiting area offer views of surrounding mountains and natural light, while soothing beige tones create a calming atmosphere. Featured: Architecture & Associates Sofas & Ottomans, Saarinen Side Tables



A private office space for executive staff features not only views of the surrounding landscape, but ample storage, worksurfaces and chairs for meetings with fellow staff. Offices have a clean, modern feel. Featured: Moment Side Chair, Generation by Knoll® Work Chair, Reff Profiles

“We wanted to create a patient-centered environment that was healing and felt more spa-like than clinical.”

*Terra Dillard, St. Francis
Administrative Director
of Oncology Services*

Infusion treatment areas sit at the perimeter of the building, offering patients natural light and views of the surrounding mountains. In addition, movable walls can be closed by patients who wish to have privacy, or opened to connect with others receiving treatment. Featured: MultiGeneration by Knoll® Stacking Chairs

Tactics

Spaces That Empower Patients

With the goal of improving patient outcomes, the St. Francis Cancer Center design integrated access to nature and natural light, soothing colors and materials and ways to adapt treatment spaces for individual comfort. “The whole project was really patient-centered,” says architect Tracey McGee of McMillan Pazdan Smith.

For example, St. Francis kept medical oncology’s 51 infusion bays on the perimeter of the building, so patients could look out at surrounding mountains and enjoy sunlight while receiving treatments. The infusion chairs recline fully and offer massage, while sliding partitions between treatment bays give patients the option of privacy or connecting with others.

St. Francis even incorporated light into their radiation oncology department, a place that is typically dark and underground. “We have direct sunlight in all corridors in our radiation oncology department and we actually have a floor-to-ceiling window right outside the entrance to the vault itself,” says Dillard.

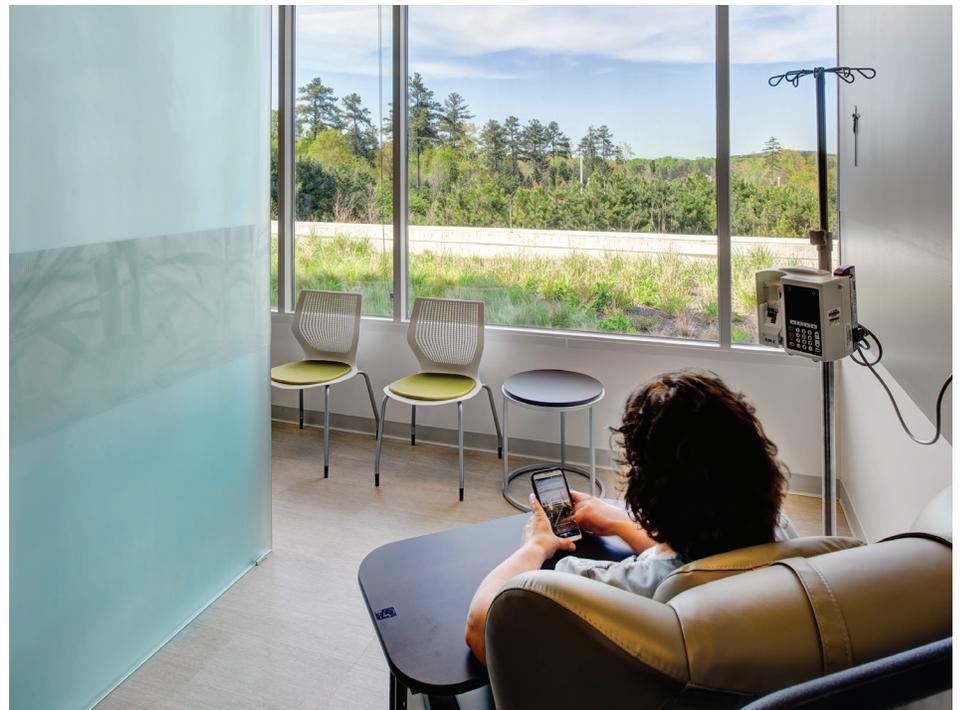
In addition, within the CT simulation room, the design team created a stunning backdrop for patients to look at while being scanned, using laser-cut FilzFelt hung from the ceiling. “It’s beautiful,” says CBI sales consultant Ali Hollstegge. “You feel like you’re walking into a forest, not a CT simulation room.”

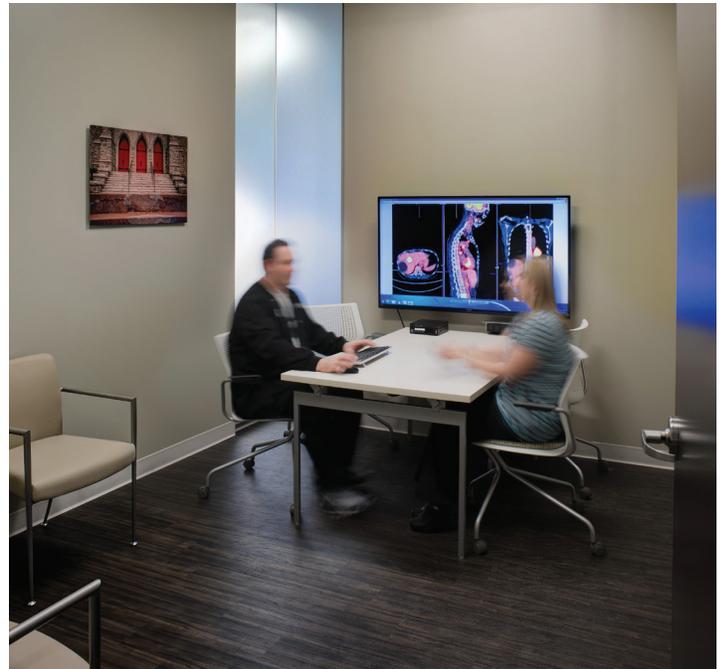
St. Francis also had Knoll create small, multipurpose consultation spaces near treatment areas so patients could meet with counselors or other staff in the location most convenient for them. The intention was to reduce stress and travel time for patients in the 65,000-square-foot space.

More Efficient Spaces for Staff

“Our old space was so fragmented,” says Vice President of Performance Management and Support Services Karen Schwartz. “It didn’t give the patients the impression we wanted of, ‘Hey, trust us. We can help guide you through this process.’”

In order to create a better experience for both patients and staff, St. Francis made improvements to their registration desks, nursing stations and any other place where patients and staff might come together. “Employees were just as much a consideration as patients in the design decisions,” says Hollstegge.





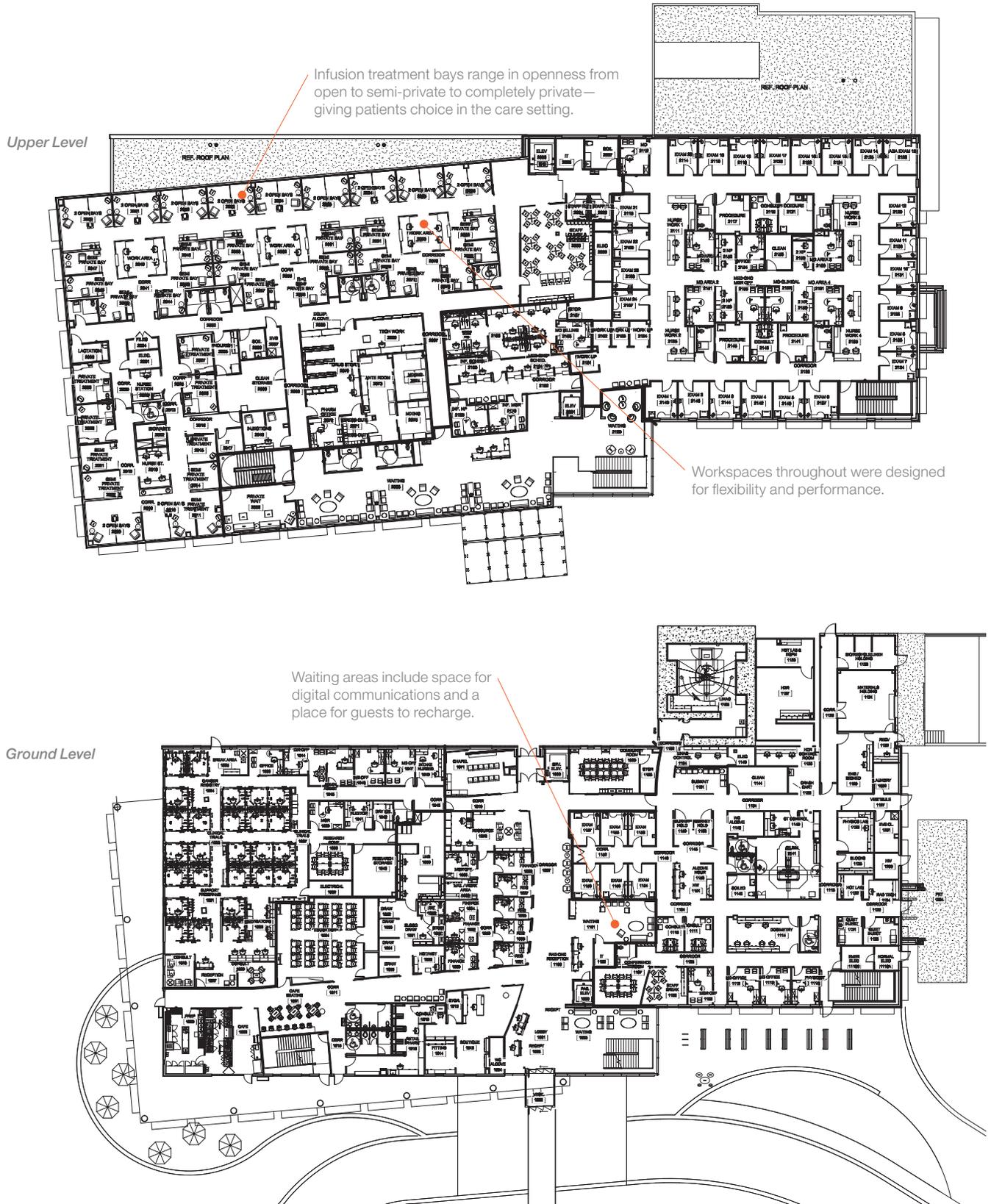
Top: Caregiver work areas near infusion treatment bays sit behind transparent barriers, making it easy for patients to feel connected to staff while also enjoying some privacy. Featured: Generation by Knoll® Work Chairs, MultiGeneration by Knoll® Stacking Chairs

Bottom Left: Laser-cut FilzFelt transforms a CT simulation room into a soothing, forest-like space.

Bottom Right: Consultations areas, located near treatment areas, make it easy for patients to meet with physicians, administrators or other support staff without having to traveling to a different area of the building. Featured: MultiGeneration by Knoll® Hybrid Chairs, Antenna® Workspaces

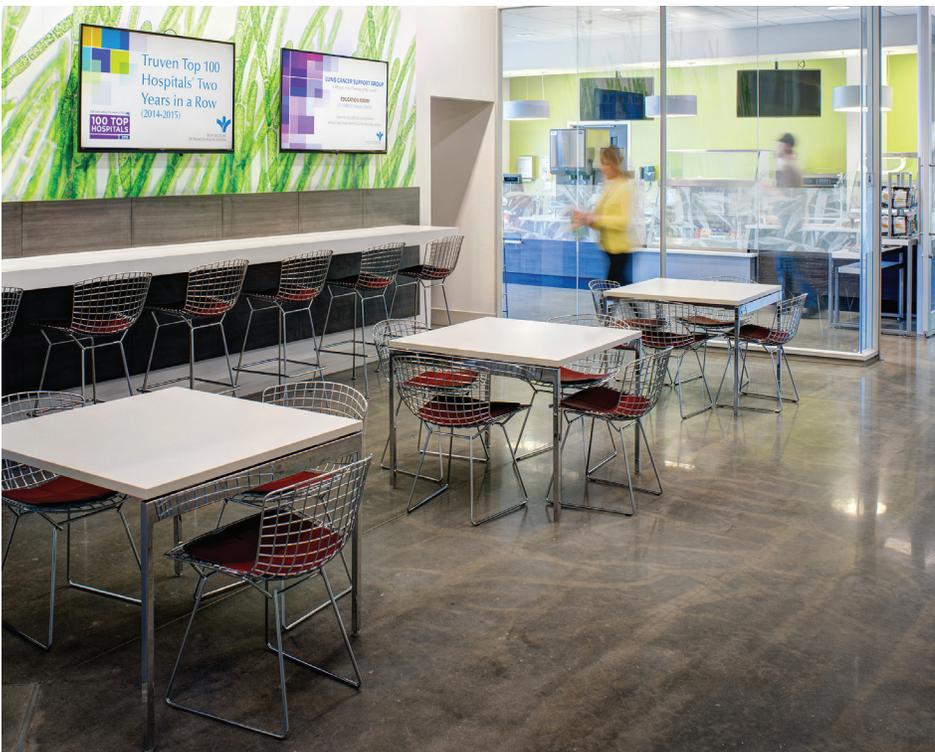
St. Francis Floor Plan

The 65,000-square-foot center is built on an ambulatory campus and houses multispecialty cancer diagnostics and treatment spaces along with retail, educational and ancillary support services—all focusing on the patient care experience.





An open, uncluttered design allows for nurses, patients and family members to interact easily at nursing stations, while modular desks provide staff with ample work space. Featured: Reff Profiles™, ReGeneration by Knoll® High Task Chairs



St. Francis Cancer Center's health food cafe offers tea, coffee, smoothies and light breakfast and lunch options to center visitors. Mounted screens share health information against a mural of grasses inspired by the center's surrounding fields. Featured: Knoll Bertoia Side Chairs, Bertoia Barstools, Antenna® Workspaces Tables

The architecture team from McMillan Pazdan Smith interviewed St. Francis staff members to understand their day-to-day needs then came back to them with models of workspaces for their approval. "We had our clinicians at the table when we were designing the space," says Dillard.

Two Knoll systems were chosen to furnish workstations at St. Francis Cancer Center. For caregivers and staff in frequent contact with patients, McMillan Pazdan Smith selected power options that could both support current demands and accommodate future technological advances, all while projecting a classic appearance. Reff Profiles™ was selected for its flexibility and custom millwork look. "Typically, nursing stations are built-in millwork. By using modular furniture instead, St. Francis can easily change the design and layout as needed." says Hollstegge.

The effort to ensure staff have adequate workspace has paid off. In a survey conducted after the center was completed, the majority of staff said the amount of worksurface space, such as desks and tables, and storage within the workstation suits their needs.

MultiGeneration by Knoll® stacking chairs provide side seating throughout the center in spaces for consultation and group training. Antenna® Workspaces Media Enclave supports a display screen for viewing results in a discrete group setting in physician consultation areas. The St. Francis team feels that the furniture choices support the comfort and efficiency they sought for staff. "The new space is gorgeous to look at and the flow is fabulous," says St. Francis' Schwartz.

Knoll also constructed workspaces for the twenty-five administrative staffers at the center. In initial interviews, the admin team requested individual privacy. Based on this request, robust Dividends Horizon® was chosen to support focused, private work. Dividends Horizon® was also used in the directors' offices. In a survey of staff following the construction of the center, 68% say the layout and arrangement of the workstation and design of the furniture easily supports their individual work activities, such as computer work, phone calls and charting.

Classic and Comfortable Furniture for All

When selecting chairs for staff, patients and visitors, St. Francis wanted supportive, attractive furniture that fit within their budget. To provide task seating at staff workstations, private offices and nursing stations, McMillan Pazdan Smith selected Regeneration and Generation by Knoll®.

“We wanted to get the employees the best chairs that we could possibly get because they are in them all day long,” says architect McGee. St. Francis even conducted training sessions so staff would know how to adjust the chair for their comfort. “The employees love the chairs. They really, really love the chairs,” says McGee.

MultiGeneration by Knoll® and Moment™ chairs provide side seating throughout the facility for guests and visitors. In lounges, McMillan Pazdan Smith selected a range of soft seating and movable lounge pieces to create a welcoming and relaxing experience.

Beautiful Fabrics That Handle Wear and Tear

Selecting fabrics and finishes for a healthcare setting requires special consideration. “We wanted to specify both environmentally-friendly fabrics and ones that could handle bleach cleaning and other cleaning agents used in a healthcare environment. Knoll has a wide variety of textiles that meet healthcare needs,” says CBI’s Hollstegge.

The St. Francis team visited the Knoll manufacturing site in East Pennsylvania and the Knoll showroom in New York for guidance on fabrics and textiles to match their vision and budget. St. Francis chose soothing neutrals and greens throughout the building to produce a calming effect. Schwartz is grateful for the care they took in choosing fabrics and surfaces. “We’re a year old. I’m thrilled when I walk into the door because everything is really holding up,” says Schwartz.

Outcomes

A Calming Ambience

The St. Francis team wanted people to enter the St. Francis Cancer Center and have an emotional response of peace and serenity. “That’s one of the things that we feel pretty confident we accomplished, based on feedback from tours and from the community. I believe that the selections that we made in



A training and classroom space invites staff and visitors to gather for lectures and discussion. Featured: MultiGeneration by Knoll® Stacking Chairs, Scribe® Mobile Markerboard

furniture and the finishes that we put on that furniture really helped us achieve that goal,” says Schwartz.

Improved Clinical Throughput

Prior to moving into the center, Dillard says that St. Francis had a total of 30,000 procedures performed in their infusion center in one year and averaged 47,000 hours to complete them. The following year, in the new center, they completed a total of 51,241 procedures and did so in fewer hours than the year before.

“We’ve increased procedures by about 20,000 from one year to the next but we’ve actually decreased the amount of time that patients spend in the infusion chair,” says Dillard. Acknowledging the greater sense of efficiency, in a survey of nurses, physicians and other staff members, 88% say that the layout of the overall team workstations in the center support their team communication and collaboration.

This improved comfort and convenience extends to every space in the building. Staff love the waiting areas for example, Schwartz says, because of the way they’re spaciouly laid out. Plus, the Knoll power and display pole, Interpole™, supports flat screens for any sort of information sharing and wellness

communications while patients and guests take time to recharge. When asked in a survey following the completion of the project, 72% of staff say the layout and location of their workstation supports communication and collaboration with patient and family, such as ample, comfortable seating for visitors waiting near treatment areas.

In another move towards collaboration, Scribe® Mobile Markerboards, which are easy to roll between spaces, were incorporated to make collaboration and note-taking easy.

An Increase in Referrals

The local medical community has responded to the presence of a comprehensive cancer center and more patients are finding their way to St. Francis.

“Our volume shows our success. The number of LINAC procedures and the volume of new patients that we see in our infusion center is going up. That’s telling us the center is a success,” says VP Schwartz. According to Administrative Director Dillard, there has been a 25% increase in referral volume since opening the center and that volume continues to grow each week. With both patients and doctors referring new people to St. Francis.



The collection of administrative staff workspaces offer privacy to each worker but glass panels allow light to move through the space keeping it bright and comfortable. Featured: Knoll Dividends Horizon®



The community room is a simple, functional and flexible space. Its usage range from yoga space to team meetings. Stacking chairs and nesting tables support that flexibility. Staff belongings are held in the storage spaces. Featured: Anchor™ Storage, MultiGeneration by Knoll® Stacking Chair, Scribe® Mobile Markerboard

Cover: A lounge area nestled in a passageway near the building entrance offers patients and visitors room to gather and connect. Featured: Knoll Saarinen Womb Chairs, Saarinen Side Tables

A Lasting Look

Part of creating a sustainable space was selecting a style that would last. The center was designed in an international-industrial style by McMillan Pazdan Smith, featuring natural and durable materials, such as wood, stone, glass and concrete, to give an “inside-outside” feel. CBI and Knoll helped to make sure that the interior selections complimented the aesthetic. “I think the decision makers on this project really fell in love with the modern design. Knoll is so appealing because their products are timeless.” says Hollstegge.

Schwartz credits their design partners for much of their success in the new center. “Knoll and CBI were phenomenal to work with. They wowed us with their professionalism, their knowledge and their willingness to spend hours with us. They were partners, collaborating with us to create this center that we wanted to create,” say Schwartz.

Since opening, St. Francis Cancer Center reports an improved patient experience and patient-staff collaboration, as well as improved collaboration and satisfaction among staff. Their dream of a state-of-the-art, beautiful community center for cancer patients has come true. And, it will remain modern and beautiful for years to come.

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St. Francis Hospital – Cancer Center

Customer Profile

St. Francis Cancer Center is a patient-centered destination for people who have been already been diagnosed with cancer and need treatment through the whole care continuum. Its mission, along with the mission of the entire Bon Secours St. Francis Health System, is to bring compassion to health care and to be Good Help to Those in Need®. St. Francis is a private, not-for-profit health system. It has received numerous awards, including one of Truven Health Analytics “Top 100 Hospitals” and a clinical excellence award from Healthgrades. Besides the cancer center, its facilities in Greenville include a rehab center, downtown and eastside acute-care locations, a surgery center, the Institute for Chronic Health and hospice and in-home care services.

Project Team

Knoll, Inc.: Knoll, Charlotte
 Knoll Furniture Dealer: CBI, Greenville
 Architect: McMillan Pazdan Smith, Greenville

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