



# ATRIUM HEALTH LAKE NORMAN DRIVES CHANGE WHILE MEETING CRITICAL NEEDS WITH NEW HOSPITAL

Project: Atrium Health Lake Norman Hospital  
Location: Cornelius, North Carolina  
Architect: NBBJ  
Product: DualSwing™ doors with sidelites

**THESE DOORS ALLOW OCCUPANTS TO ACTIVATE AN AUXILIARY LEAF FOR A WIDER OPENING WHEN NEEDED WITHOUT REQUIRING LARGER SPATIAL ACCOMMODATION FOR DAILY USE.**

Atrium Health Lake Norman, and its new hospital, is a testament to the region's rapid growth in health, science and business. The over 170,000 square-foot, 36-bed acute care hospital includes multiple medical/surgical rooms, four intensive care unit (ICU) rooms, several maternity-focused rooms, a pharmacy, laboratory, a 24/7 emergency department and much more.

In addition to providing so many services under one roof, the new hospital sets a new benchmark for value-oriented, prefabricated design, according to NBBJ, the architectural firm behind the hospital. This approach delivers faster timelines and more cost-effective construction while also maintaining a flexible design. The forward-looking and adaptable building not only [drives positive change but also meets a critical need for the Carolinas](#).

Part of the project's cutting-edge design is its ability to allow a high degree of flexibility in how care is delivered. This is evident in the hospital's multiple mobile magnetic resonance imaging (MRI) and x-ray units. For these units to be useful and for the hospital to be accessible to a wide range of individuals, it is important that patient room doors offer wide openings when needed without necessitating large swing arcs for daily use.

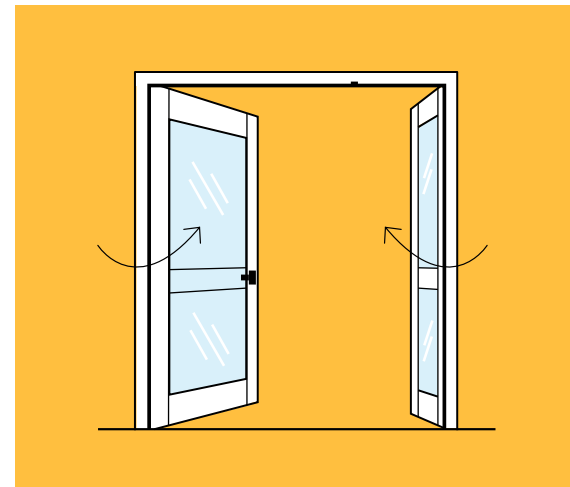
**Creating an adaptable health care space for the present's needs**

Along with the prefabrication approach, doors with larger-than-average opening width contribute to a more flexible design by accommodating the movement of mobile medical equipment, mobile beds and bariatric wheelchairs.

However, larger doors present several challenges to efficient and accessible building design. First, if they are traditional swing doors, they will need more perpendicular clearance to account for swing arc trajectories. Likewise, larger door leaves may necessitate opening and closing devices to ensure a door's opening force is within Americans with Disabilities Act standards (ADA).

To accommodate these needs, often interior designers will increase the size of a room or decrease the amount of programming within a health care facility, or both. Flexible opening swing doors offer another option. These doors allow occupants to activate an auxiliary leaf for a wider opening when needed without requiring larger spatial accommodation for daily use. In this way, these door systems support design flexibility without compromising optimal floorplan efficiency.

NBBJ leveraged the advantage of flexible openings to improve the adaptability of several patient rooms within Atrium Health Lake Norman's hospital.



**Why standardizing flexible door systems pays off**

DualSwing™, a flexible opening swing door from AD Systems, is incorporated into multiple patient rooms at Atrium Health's hospital in Lake Norman. Designed with a standard width main door and an auxiliary leaf, DualSwing allows for the easy passage of patient beds, medical equipment and larger mobility devices without compromising a space-efficient design.

DualSwing was also made a standard door system for Atrium Health projects after the design and medical teams assessed its use in a previous North



**DUALSWING PROVIDES DURABILITY AND MEETS PROJECT CRITERIA FOR EASE OF OPERATION, MAINTENANCE REQUIREMENTS, AESTHETICS, SAFETY AND CLINICAL FUNCTIONALITY.**

Carolina project, [Atrium Health Levine Children's Hospital](#). In addition to flexibility, for this project, DualSwing provides durability and meets project criteria for ease of operation, maintenance requirements, aesthetics, safety and clinical functionality.

**AD SYSTEMS' DOOR SYSTEMS COMPLEMENT MODULAR CONSTRUCTION BY SUPPLYING ALL NECESSARY DOOR COMPONENTS, INCLUDING DOORS, FRAMES AND THE COMPLETE HARDWARE PACKAGE.**

When the time came to specify doors in the Lake Norman hospital, the project team had an established standard for guidance. As a result, the specification process was made more efficient, a benefit that works with a prefabricated approach to construction.

**Single-source doors align with prefabricated benefits while centering occupant comfort**

Creating a forward-looking hospital entails more than door specification. The NBBJ team utilized several prefabricated elements at Atrium Health Lake Norman to achieve construction efficiencies and to support a more adaptable floorplan.

While DualSwing was not incorporated into the prefabricated elements, these doors and other flexible openings from AD Systems align with efficient construction. AD Systems' door systems complement modular construction by supplying all necessary door components, including doors, frames and the complete hardware package. This single-source approach can extend the streamlined building processes and supply chain efficiencies inherent to prefabricated construction to other parts of the built environment.

The 19 DualSwing systems within Atrium Health Lake Norman and their accompanying sidelites contribute to the medical campus' efficient build and its adaptable and patient-focused spaces. Designed with full-lites of glass, these systems support a visually connected and intuitively navigable space. And because these doors offer premium sound attenuation they help safeguard patient privacy while also minimizing disruptive noise from transferring from common areas to patient rooms.

**Opening the door for productive collaboration**

Atrium Health's new North Carolina campus is not just a response to the area's current health care needs. It is

also an extension of the collaborative relationships Atrium Health, NBBJ and AD Systems formed with the completion of the Levine Children's Hospital in 2024.

While the specifics of this working relationship are unique, they are not uncommon. AD Systems has a legacy of working with firms to provide custom solutions to health care projects, which result in repeated collaborations, as demonstrated by Pacific Medical Centers' [Providence Health's Gately-Ryan Building](#) and [Intermountain Cancer Center – McKay-Dee Hospital](#).

As the most recent example of these such efforts, Atrium Health Lake Norman showcases a forward-looking approach to health care construction, from how its volumes were built to the doors installed within the hospital.

**TO LEARN MORE ABOUT DUALSWING™ AND OTHER AD SYSTEMS DOOR PRODUCTS, CONTACT OUR TECHNICAL TEAM AT (425) 740-6011 OR EMAIL [ADSYSTEMS.SALES@ALLEGION.COM](mailto:ADSYSTEMS.SALES@ALLEGION.COM).**