



In order to better serve a growing population of retirees, Community Medical Center is expanding their current emergency department to offer a wider range of services and to decrease waiting and lab result times. The existing department was expanded to accommodate separate adult and pediatric emergency service lines and in-department diagnostic functions. Since the existing facility was expanded in place, the department had to remain fully operational at all times. This required a complex phasing plan that included detailed phase-by-phase information for both the contractors and the hospital administration and staff.

### Project Information

- 129,000 SF new construction, 28,000 SF renovation
- 120,000 patient visits per year
- 21 triage/fast track exam rooms
- 40 adult exam rooms
- Separated into four clinical "pods" to minimize travel time for staff
- Pods include triage, psychiatric screening/crisis intervention, major treatment, cardiac treatment, and emergent patient treatment
- Materials are located in exactly the same place in each pod to enhance staff efficiencies
- Bedside electronic registration for patient privacy
- Separate walk-in and ambulance entrances
- Collocating physicians and nursing staff in each pod allows for the quick and efficient sharing of patient information and treatment needs
- Ambulance entrances are located near the major treatment pod to allow for quick reaction to critical patients

### Fast Facts

- Construction cost: \$65,000,000
- Design Start: June 2003
- Construction Completion: August 2005



This replacement emergency department was the result of the growing demand in the community for more efficient emergency services. The current department was receiving declining patient and staff satisfaction surveys, primarily due to long delays in receiving service and a lack of patient and staff privacy. The Center wanted to create an environment that would provide patient safety, privacy, and expedient care while maintaining optimum staff efficiencies.

To meet the changing needs of the community and the Center, the new department features fast track service for non-urgent care, in-department radiology and express testing, and staff support space that allows for "quiet" areas away from patient care areas. The floor plan was developed to support maximum flexibility and collaboration between staff.

#### **Project Information**

- 46,000 SF new construction
- 60,000 patient visits per year
- 16 triage/fast track rooms
- 25 exam/treatment rooms
- 2 dedicated trauma bays
- Separate and secure psychiatric evaluation center with lock down capabilities
- Radiology and express testing in-department to provide immediate results
- Pneumatic tubes are located at each nurses station
- Separate walk-in and ambulance entrances
- 633-car attached structured parking garage

#### **Fast Facts**

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- Design Start: June 2003
- Construction Completion: August 2005



The Emergency Department design features patient-focused and family-friendly amenities, and is designed to accommodate 50,000 patient/year.

By increasing the number of patient rooms from 23 to 36, the Hospital is able to comfortably treat one-third more patients. By reorganizing the entrances to the Department and the flow of patients and services within the Department, Array's design will make attaining emergency services less stressful as well as quicker for the typical patient. Ambulances and walk-in patients will now enter from opposite ends of the Department, and fast-track and pediatric patients will have their own pod of 12 patient rooms. Walk-in patients will be immediately and privately triaged. The patient rooms are all private, and completely enclosed with a sliding glass door and curtain to offer more privacy than the typical curtained ER patient bays.

All patient rooms are uniform in size and layout, with all supplies and equipment positioned in the same location in each room; a planning factor which has been proven to support and improve patient safety and care delivery, and to provide flexibility in room utilization. Each room features state-of-the-art response equipment and individual toilet facilities and is large enough to accommodate a family member at the bedside, as well as ample treatment area for medical staff.

An imaging suite with two Radiographic Rooms and a CT Scanner is located adjacent to the ED. This facilitates rapid patient testing and results, contributing to shorter ED stays.

### **Project Information**

- Expand clinical treatment area to 27,900 SF
- Features three, 12-bed treatment units to support census fluctuation
- Increases the number of treatment bays from 23 to 36
- Rooms have glass doors for privacy and include electronic charting and patient tracking technology
- Features separate Pediatric & Fast Track pod
- Features dedicated CT Suite and Radiology Room for ED patients

### **Fast Facts**

- Construction cost: \$12,000,000
- Design Start: January 2006
- Construction Completion: September 2008

# UNIVERSITY HOSPITALS CASE MEDICAL CENTER

## Emergency Department Cleveland, OH



University Hospitals Case Medical Center recently completed a Facilities Master Plan (provided by Array) illustrated the need for a new Emergency Department to replace their current outdated and undersized unit. The Plan identified the need for separate pediatric and adult treatment areas and an efficient fast track for non-urgent patients. Several floor plans are currently being investigated, including both linear and pod layouts, to determine which would best meet the needs of both the patients and the staff.

Array worked closely with the physicians and nursing staff to help them select an appropriate design model. Each group selected a different model based on their personal preferences and operational efficiencies. Our planning team helped them arrive at consensus by incorporating features from both design models into the final design. The decision to create a separate pediatric emergency unit with separate entrances was based on the Medical Center's children's hospital, Rainbow Babies & Children's Hospital, being selected as the fifth ranked in the nation.

### Project Information

- 36,500 SF new construction
- 96,600 patient visits per year
- 40 adult exam rooms
- 23 dedicated pediatric exam rooms
- 9 rapid care rooms
- Bedside registration in private rooms
- Separate and secure psychiatric holding/treatment rooms
- In association with OWP/P.

### Fast Facts

- Construction cost: \$39,500,000
- Design Start: January 2006
- Construction Completion: February 2008



Jupiter Medical Center is a 30-year old comprehensive medical center located in an affluent area of Southeastern Florida. The 30-acre campus specializes in quality patient-centered services with a 5-star rated, 156-bed acute care hospital and patient pavilion and 120-bed facility specializing in rehabilitation, skilled nursing, and long-term care. Array is helping Jupiter remain at the forefront of clinical innovation through a series of improvement projects to enhance the Medical Center's business and care objectives.

Array began working with Jupiter when it was retained to complete stalled work on the emergency department. The project includes 17 bays, dedicated and separate entrances for patients and staff, rapid response and triage areas, as well as private family respites for waiting. A dedicated upscale VIP emergency center caters to the wealthy and celebrity population in Jupiter's demographic, providing these VIP patients with added security and seclusion. The expanded emergency department will expand throughput, reduce patient waiting times.



#### **Project Information**

- 12,000 SF
- 17-bed treatment units to support census fluctuation
- Private family waiting respites
- VIP Treatment and recovery suite
- Adjacent imaging / diagnostics



#### **Fast Facts**

- Total Construction cost: \$11 million
- Design Start: November 2006
- Construction Completion: February 2008

As a preferred design partner for Monmouth and its parent organization, Saint Barnabas Health Care System, Array was retained to provide planning and design services for an expanded Emergency Department at the Monmouth Campus. The current size, while relatively new and technically advanced, was inappropriately sized to properly treat the community. By repurposing previously-underutilized and adjacent administration space, the expanded department is designed to treat 75,000 visits annually.

The new entrance features a prominent entry and registration desk. Simple wayfinding orients patients and visitors towards adjacent psychiatric, pediatric, and more serious treatment units. The expanded ED provides clinical staff with three triage bays, ten additional exam rooms, a pediatric-specific room, and seven additional treatment and observation bays.

An adjacent imaging suite reduces the time needed to transport patients needing diagnostics or special imaging.

#### **Project Information**

- 9,600 SF
- Universal rooms reduce staff training requirements, flex up and down to match acuity, and are designed for fast turnover between uses.
- Centralized nursing stations provide views to all exam rooms and minimizes steps needed to move about the unit.
- Separate and distinct spaces for pediatric waiting, adult waiting, and counseling.