

ST. JOSEPH REGIONAL MEDICAL CENTER

Center for Women and Infants

Milwaukee, WI



Originally awarded to another firm, Array inherited this project because the previous design was unsatisfactory and significantly over budget. Array's solution for this complex service provided a new addition and renovation project that enhanced all program components and halved the construction cost.

Today, the newly constructed Center for Women and Infants (CWI) at St. Joseph Regional Medical Center supports the largest perinatal center in Wisconsin. It is also home to the International Institute for the Treatment of Twin-to-Twin Transfusion Syndrome, which performs in-utero life saving surgery; the only fetal treatment center in the world specifically designed and dedicated to this disorder.



Project Information

- 121,000 SF new construction; 86,000 SF renovation
- 54-position Neonatal Intensive Care Unit (NICU) which serves 700 infants each year
- 44-bed Post-partum Unit
- 20-bed Antepartum Unit
- 15 – Labor, Delivery, and Recovery Suites
- Three dedicated OR Suites
- Patient amenities include a café, a women's resource center with massage rooms, a spiritual center including a chapel, and multipurpose area with conference/classroom/group rooms



Fast Facts

- Construction cost: \$81,000,000
- Design Start: November 2000
- Construction Completion: December 2003



SAINT BARNABAS MEDICAL CENTER

Pediatric Center of Excellence

Livingston, NJ



High technology and design whimsy come together in this renovation that cares for more pediatric patients than any other hospital in New Jersey. Creating Saint Barnabas Medical Center's Pediatric Center of Excellence began with co-locating all Pediatric inpatient service lines, including General Pediatrics, Pediatric Intensive Care Unit (PICU) and Hematology / Oncology / Step-Down together on one floor - essentially creating a 'Hospital within a Hospital.'

This Project was featured in the September 2005 Architectural Showcase of Healthcare Design Magazine.

Project Information

- 29,500 SF renovation
- A centrally located Welcome Center features built-in play areas, an aquarium, and child-scale furniture
- Staff sub-stations are located outside all PICU rooms to facilitate staff activities concentrated at the bedside and accessible to parents.
- Interiors were designed to be harmonious and colorful, without being age specific.
- Private rooms are designed with a family zone that does not compromise clinical space.
- Family sleeping rooms, consultation rooms, and a family kitchen are provided for family comfort.
- PICU and Hematology/Oncology Step-Down Units feature a racetrack design with a shared central core.
- Each room includes a full rotational power column which allows the patient to be un-tethered from the wall.

Fast Facts

- Construction cost: \$6,000,000
- Design Start: December 2002
- Construction Completion: February 2005

ALFRED I. DUPONT HOSPITAL FOR CHILDREN

Master Plan Wilmington, DE



With facilities totaling over 1 million GSF, the Alfred I. duPont Hospital for Children is a division of Nemours, which operates one of the nation's largest subspecialty group practices devoted to pediatric patient care, teaching, and research. Located just outside of Wilmington, Delaware, duPont has experienced tremendous growth and engaged Array to develop a Facilities Master Plan that would assist the organization in setting expansion priorities.

Project Information

- 300-acre, 150-bed site
- Service lines evaluated included Pediatrics, Cardiology, Ambulatory Services, Emergency Department, Surgery, and Oncology
- Over 130 surveys were distributed among clinical, support and management personnel to obtain a user perspective of the current facility
- Projects were prioritized by need and a detailed phasing plan was included to ensure that any disruption to ongoing operations was minimized
- Areas were identified for improvement in site organization and access to create a more welcoming, safe and child-friendly campus
- The final plan included alternate schemes that investigated off-site locations for non-mission critical elements
- Collocating of departments was recommended to create functional zones that would improve operational efficiencies and enhance key functional relationships

Fast Facts

- Construction cost: N/A
- Design Start: March 2004
- Construction Completion: N/A

ALFRED I. DUPONT HOSPITAL FOR CHILDREN

Hematology/Oncology Unit Wilmington, DE



The Alfred I. duPont Hospital for Children, a division of Nemours, recently completed the first phase of the renovation of their Outpatient Hematology/Oncology Department. Adjacent available space afforded the opportunity to expand this service. Intake and infusion functions were relocated to the newly design area, allowing future expansion of the existing clinic space. The new area significantly improves the treatment processes and provides a calming, comforting environment for patients, families and staff.

Project Information

- 2,600 SF renovation
- Five infusion bays with access to natural light
- Two private/isolation infusion/exam rooms
- Two intake/exam rooms
- One teen room with internet access, age appropriate furniture, and artwork
- Private work areas were provided for doctors and staff
- Nurses desks provide clear visualization and sight lines to all areas

Fast Facts

- Construction cost: \$1,200,000
- Design Start: May 2004
- Construction Completion: March 2005

ALFRED I. DUPONT HOSPITAL FOR CHILDREN

NICU / CICU Replacement Wilmington, DE



The Alfred I. duPont Hospital for Children, a division of Nemours, operates one of the nation's largest subspecialty group practices devoted to inpatient and outpatient pediatric patient care, teaching, and research. Located just outside of Wilmington, Delaware, this 180-bed hospital on 300 acres of parkland has experienced tremendous growth. Array was engaged to develop a Master Plan to evaluate expansion opportunities, improve campus site utilization and wayfinding and create a more welcoming, safe and child-friendly facility. The NICU replacement was identified as one of the top priority projects. In addition to the NICU, an adjacent Cardiac Intensive Care Unit features the latest in cardiovascular care.

Project Information

- 21,000 SF renovation (12,000 SF NICU / 9,000 SF CICU)
- Level II and III state-of-the-art neonatal services
- 14 neonate bassinets, 10 CICU positions
- Four "flex up" positions
- An adjacent Ronald McDonald facility features a resource room, working office with internet connection, a dedicated family suite with comfortable waiting and pantry facilities, a sibling play zone with child-sized furniture and dedicated family lockers and washroom facilities
- Multi-use lactation/consultation rooms and Family Transition rooms are located on the unit to assist families with the transition of their baby from hospital to care at home
- A central "reception/command center" provides a single location for patient information
- This bassinet positions are designed recognizing the need for and benefits of light, yet with appropriate controls for selective impact

Fast Facts

- Construction cost: TBD
- Design Start: December 2005
- Construction Completion: June 2007

UNIVERSITY HOSPITALS

Rainbow Babies & Children's Hospital NICU Relocation Cleveland, OH



In 2004, Rainbow Babies was ranked by US News & World Report as the sixth best children's hospital in the nation, and this year, Child Magazine included Rainbow Babies in the top five children's hospitals, specifically crediting Rainbow's NICU with the best survival rates and longest follow-up clinic for tracking the development and outcomes of premature infants well into adulthood. This Level III nursery is one of 12 NICUs in the USA designated by the National Institutes of Health as a Neonatal Research Center.



University Hospitals, parent organization of Rainbow Babies and Children's Hospital, has engaged Array to provide system-wide planning services to assist with capital prioritization for facility improvements. Undersized by today's NICU space standards and as a result of its national reputation, NICU facility improvement has been identified as one of the top priority projects.

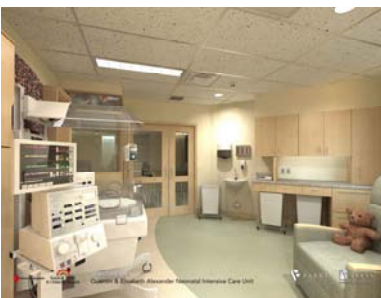
Project Information

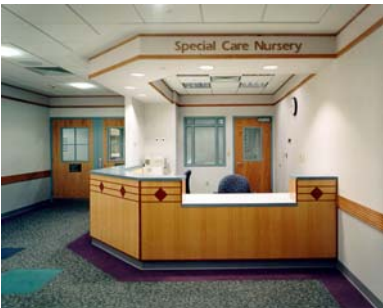
- 30,000 SF renovation
- 42-bed NICU
- Level III / IV NICU
- Step-down Transitional Nursery
- Test fits were completed to ensure flexibility for future growth
- Hospitality areas will be provided in each room for families including internet access, sleeping area, and work desk



Fast Facts

- Construction cost: Not applicable
- Design Start: November 2000
- Construction Completion: N/A





Christiana Hospital is the only delivering hospital in Delaware offering Level III, Neonatal Intensive Care (NICU). Working with the Hospital's in-house architecture group, Array provided a full range of planning and interior design services for this state-of-the-art NICU that provides the highest standards of acute care in a nurturing environment for newborns.

Project Information

- 20,000 SF renovation
- 40-bed NICU; expandable to 65-positions
- Climate-controlled nursery alcoves can accommodate up to three infants in separate beds and are fully equipped for bedside procedures
- Each alcove is equipped with computer monitors and real-time, closed-circuit TV that allow parents to stay in visual contact
- On-site pharmacy
- A separate lounge, complete with a children's play area and kitchenette is available for visitors.
- "Overnight" discharge room to ensure that the hospital to home transition is as stress free as possible

Fast Facts

- Construction cost: \$5,075,000
- Design Start: March 1995
- Construction Completion: February 1997



Huntsville Hospital acquired a hospital that was located in close proximity to their main campus in Huntsville, AL. The demand for Women's and Children's services was growing every year and the existing facilities could no longer meet the needs of the community. The new facility would allow for a free-standing Women's and Children's Hospital that would eventually be linked by monorail to the main hospital.

Array provided space planning and schematic design for the relocation of all Women's & Children's services to the new facility.

Project Information

- 185,295 SF renovation
- 13 Operating Suites
- 8 Pediatric Recovery Bays
- 16 LDR suites with adjacent Triage Area
- Sterile C-Section Suite and 10-bed Antepartum Unit
- Dedicated Postpartum Unit with Holding Nurseries
- Child Life Program and Pediatric Procedure Suite
- Separate outpatient surgical tracks for women & children
- New Main Entrance with enhanced hospitality functions

Fast Facts

- Construction cost: \$18,900,000
- Design Start: October 2001
- Construction Completion: December 2002

MIAMI CHILDREN'S HOSPITAL

Multiple Projects

Miami, FL



Miami Children's Hospital is considered a world leader in pediatric healthcare and is the only hospital exclusively for children in Southern Florida. The hospital includes 268 pediatric and neonatal beds and offers more than 40 pediatric specialties and subspecialties. Array has worked closely with the Hospital to provide facilities that help provide the highest level of care to their young patients and their families.

Project Information

- **"Rock Toy Chest":** Special toy chest designed as a centerpiece to hold toy donations and gifts for the patients.
- **Radiology Room 1850:** Installation of a new Phillips X-Ray unit and associated support equipment.
- **3T MRI:** 1,000 SF space located adjacent to the existing imaging department to add new 3-Tesla MRI unit and 64-slice CT Scan.
- **Dan Marino Rapid Care Center Imaging:** Includes changing, administrative and support facilities to support new 1.5-Tesla MRI unit and 64-slice CT Scanner control room.
- **Adolescent Medical Unit:** Relocation of the 2,250 SF Adolescent Medical Unit from the existing building location 2,250 SF.
- **Bed Location Plans and Tabulations:** In anticipation of a new patient tower construction, Array performed a series of tabulations for both licensed and unlicensed beds, allowing the hospital to define expansion strategies.
- **Data Center:** Installation of a new UPS to support the campus Data Center.
- **CVICU Parent's Lounge:** Renovation to provide internet access, quiet lounge seating, and support services.
- **Radiology Department Master Plan:** Planning effort to determine both long- and short-range expansion plans for renovating existing radiology department.
- **Digital Radiography Renovations:** Includes PET/CT Scan unit, nearly a dozen PACS reading areas, seven digital radiography / chest units and support areas.
- **Level III NICU:** Conversion of eight acute care beds to Level III NICU beds.
- **ADA / Egress Survey:** A campus-wide survey documenting existing conditions and preparing remediations to update entire building to ADA standards. Includes survey of existing building escape technology and systems as well as assessment and recommendation of remedial plans.

The images found to the left are artist renderings of Array's concepts for a proposed new patient tower at the hospital.