Richmond, Virginia



**SQ FT** 632,989 BGSF with 323,452 **GSF** parking



**OWNER/AFFILIATION** Virginia Commonwealth University



ARCHITECT(S)



**COMPLETION DATE** March, 2016







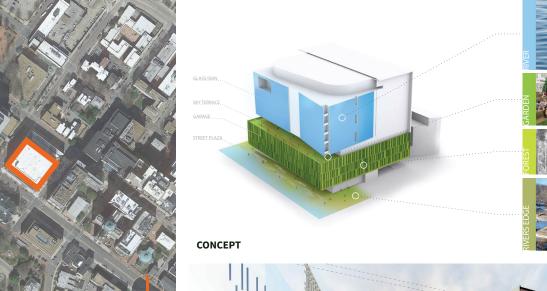


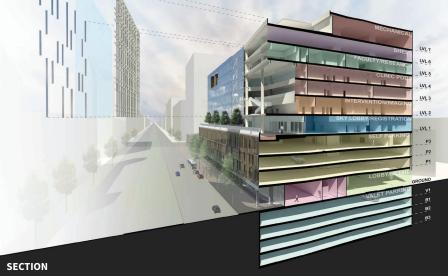




The Children's Hospital of Richmond at Virginia Commonwealth University (VCU) is the largest and most advanced outpatient health facility dedicated to children in the region. Located at the gateway to the Medical College of Virginia campus, the 15-story ambulatory pavilion consolidated existing pediatric clinics into a vertical urban pavilion and includes a surgery level, three levels of pediatric clinics and a floor dedicated to faculty offices, research and medical student education.

Adjacent to Richmond's most important civic and historic structures, the design establishes a signature identity that embodies VCU Health System's objective of enhancing their brand image and status as a premier pediatric academic medical institution. With its prominently located roof terrace and themes of sky, water and forest, the design brings nature to the heart of this urban campus.





Case Study Format Developed By: AH

Richmond, Virginia

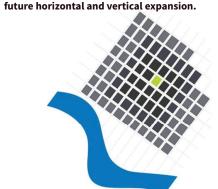
#### **DESIGN STRATEGIES**

## Inspired by water

Water has many intrinsic and symbolic characteristics that lend themselves to a supportive, healing environment. It can be abstracted and interpreted in pattern, color, texture and form.

Through creative surface manipulation, we can transform solidity into ephemeral, emulating the effects of liquid with reflections and undulations. A random pattern of repetitive elements can create a shimmering effect and fluid reflections; smooth, continuous, but vibrant and transparent; with depth and color; luminous.

The new Children's Hospital of Richmond Pavilion (CHoRP), will be an outpatient facility dedicated to providing comprehensive and compassionate healthcare for children, including primary and sub-specialty care, outpatient surgical and imaging services, and clinical research studies. It contains four levels of pediatric care clinics, including six specialty clinic pods, each with twelve exam rooms, treatment room, support spaces and nurse work core. The building is designed to optimize flexibility, efficiency and

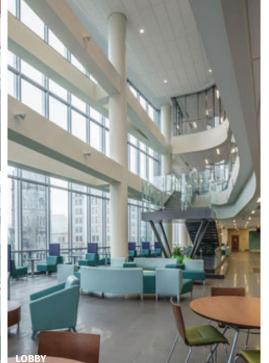


#### SITE PLAN









#### **DESIGN STRATEGY**

## **Collaboration space**

The ChoRP was designed with collaboration in mind, incorporating a range of planning and design elements that promote enhanced clinical care in an uplifting environment that supports patient, staff and visitor comfort.

Its three levels of pediatric clinical services include seven specialty clinic modules, each with 12 exam rooms, a treatment room, support spaces and a nurse work core.

With an emphasis on physical, visual and abstract connections to nature, CHoRP has a calming, restorative effect on all who experience the building, reducing anxiety and stress, and in turn, promoting health and healing. The focus is on the patient and his or her family and the elimination of stresses associated with medical facilities in a busy urban setting.

"Having nearly all pediatric outpatient services under one roof makes such an impact on our patients and their families," said Suzanne Britt. director of the Children's Pavilion. "Kids can spend more time being kids and parents can have the convenience of multiple appointments in one building and miss fewer days of work."

# Richmond, Virginia

#### **DESIGN STRATEGY**

## Integration to the context

Adjacent to the city's most important and historic civic structures, the design establishes a bold, signature identity that embodies VCU's objective of being the premier pediatric academic medical institution for the care of sick and injured children.

The Broad Street entry will be enlivened by a cafe and retail/gallery space. Bold colors and integrated artwork are used at key entries throughout the pavilion to welcome patients and family members.

The open and light filled vehicular drop-off is patient friendly and welcoming. Wood ceilings and brightly colored terra cotta tiles draws your eye to the entry portal.

### KEY

Materials Handling

**Public Function** 

Lobby

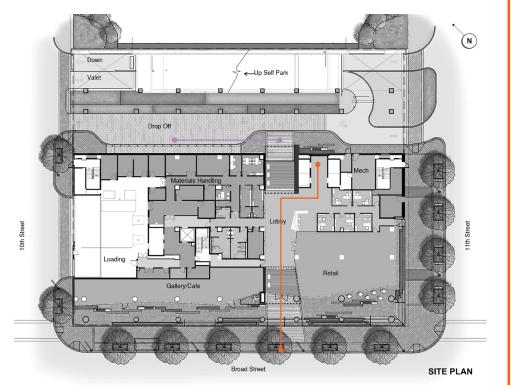
Mechanical

#### **GROUND LEVEL:**



Note: "Departmental Square footages take-off based on 'Analysis of Departmental Area in Contemporary Hospitals calculation methodologies & Design Factors Report, 2014

#### TRAVEL DISTANCE ANALYSIS



# **DEPARTMENTAL GROSS SQUARE FOOT**

**TAKE-OFFS** 

Gross Material Handling 7051 SF Gallery/cafe 3191 SF 3731 SF

#### TRAVEL DISTANCE ANALYSIS

Patient: Entrance to elevator 152ft

• Family: Drop off to entrance 83ft

Richmond, Virginia

#### **DESIGN STRATEGY**

## Sky garden

Five stories above grade, the sky garden is an open air healing garden offering dramatic views of the city. The garden brings nature to the heart of the urban campus and will have a calming, restorative affect for patients, families and staff.

Patients will be greeted at the Sky Lobby with expansive views to the exterior. A concierge desk and electronic informational kiosks will facilitate registration and wayfinding. A cafe connecting to the Sky Garden will offer healthy drinks and snacks. Wood slat ceiling and patterned porcelain tile and lighting add visual interest and continue to reinforce patterns found in nature.

### KEY

HEM/ONC clinic Administration

Waiting & public space

### LEVEL 1:







# **DEPARTMENTAL GROSS SQUARE FOOT**

**TAKE-OFFS** 

Gross Infusion 9673 SF Administration 9274 SF

#### TRAVEL DISTANCE ANALYSIS

Patient: Clinic Elevator to Parking Elevator 96ft

Clinic Elevator to HEM/ONC waiting 164ft

Waiting to Infusion 110ft

• Family: Parking Elevator to Sky Lobby 57ft

Staff: Office to Exam room 52ft-173ft

#### **KEY SPACES:**

- Exam Rooms (129sf)
- ▶ Office (155-216sf)

Richmond, Virginia

**DESIGN STRATEGY** 

### Atrium

The atrium helps mark the 11th Street campus gateway and offers a dynamic and engaging environment for children and young adults, with a dramatic connecting stair and prismatic light sculpture. The atrium ceiling and feature wall of rich woof paneling and interactive lighting acts as metaphor for a grove of trees.

### KEY

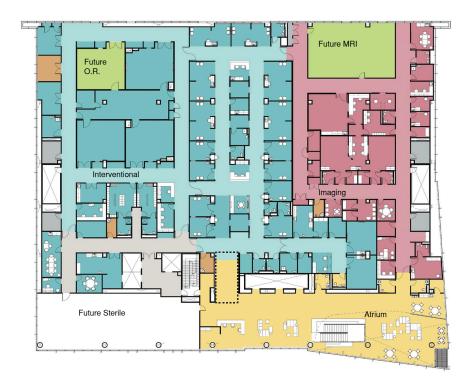
Surgery/Intervention

Future expansion

Imaging

Atrium

LEVEL 2:



Future Future Sterile

# **DEPARTMENTAL GROSS SQUARE FOOT**

**TAKE-OFFS** 

Gross Surgery/Intervention 25264 SF Imaging 12199 SF Atrium 7718 SF

#### TRAVEL DISTANCE ANALYSIS

Patient: Elevator to Waiting 28ft

Waiting to Pre-op 77ft-199ft

Pre-op/Post-op to OR 95ft-210ft

• Family: Elevator to waiting 28ft-115ft

Staff: Private elevator to clean core 155ft

#### **KEY SPACES:**

- ► OR (626 sf)
- ► Pre-op/Post-op (137sf)
- ► General Radiology (293sf)

Note: "Departmental Square footages take-off based on 'Analysis of Departmental Area in Contemporary Hospitals calculation methodologies & Design Factors Report, 2014

Richmond, Virginia

## Clinic design

The central work core encourages interaction between nurses and physicians, resulting in a coordinated caregiver approach. Rather than embedding diagnostics into each specialty clinic, efficiency is gained through shared diagnostics on each clinical floor. Each 12-exam module is organized with perimeter exam rooms, creating a calmer patient experience by fully separating the offstage support zone from the onstage patient environment.

### KEY

Clinic

Public waiting area

Neurology/Dialysis

Shell space

#### LEVEL 4:





### **DEPARTMENTAL GROSS SQUARE FOOT TAKE-OFFS**

Gross Clinic 29545 SF Public Waiting Area 13156 SF Neurology/Dialysis 5159 SF

#### TRAVEL DISTANCE ANALYSIS

Public: Elevator to Clinic Waiting 141-234ft

Clinic Waiting to Exam Room 61ft-130ft

Family: Elevator to waiting: 23ft-95ft

Staff: Elevator to staff work core: 113ft-319ft

### **KEY SPACES:**

- Exam Room (116 sf)
- ► Workcore (1303sf)

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Richmond, Virginia

### **DESIGN STRATEGY**

## Interior design

The building's contemporary design includes beautiful glass enclosures. "There's a pleasant quirkiness to it," said design award judge Jennifer Schlimgen, vice president at design firm Kahler Slater, noting that the building isn't completely rectangular and the exterior is integrated with the surrounding environment.

The design allows for natural light to flood into the building, and patients and their families have various places to get even more sunlight and fresh air. A sky lobby leads out to a rooftop terrace and garden, bringing together themes of sky, water and forest. It also offers views of the James River.

### **PROJECT SUMMARY:**

Project: Children's Hospital of Richmond Pavilion Project location: Richmond, Virginia **Owner/Client: Virginia Commonwealth University** Architect: HKS

Construction manager: Skanska USA Building Inc. Structural engineer: DMWPV and Schnabel Construction cost: \$168 million Building area GSF: 632,989 BGSF Cost per square foot: \$265/SF Construction start date: September 2012 Substantial completion date: March 2016





### **AIA/AAH DESIGN AWARD WINNER**

Category C: Unbuilt (Must be commissioned for compensation by a client with the authority and intention to build)

#### **JURY COMMENT**

- ▶ A strong concept and sophisticated approach to a difficult program are evidence of the focus this team brought to this solution. The design respects the difficulties of the site and the opportunities of designing for a children's health facility.
- ► The clinic level medical planning is very well done reflecting efficient clinician workflow without compromising day lighting to the staff and public areas. The building massing responds exceptionally well to the functional requirements and are executed with appropriately differing materials. This is an insightful solution to a compressed urban site.





