

## **North Carolina Museum of Art**

### **Architecture for Art**

West Building Architecture and Construction Facts for Visitors

Since opening in April of 2010, West Building has received numerous awards, for its sophisticated architecture, landscape, and sustainable design. Its transparency and innovative use of daylight for viewing art connects the gallery experience with sculpture gardens and Museum Park.

### **Design Awards**

- American Institute of Architects: Honor Award
- American Institute of Architects, New York: Honor Award
- NC American Society of Landscape Architects' Award of Excellence
- Triangle Business Journal's Green Award: Land Development
- Sir Walter Raleigh Award / City of Raleigh: Community Appearance

### **Building Structure and Systems**

- Size: 127,000 sq. ft. steel-frame building is built on a 26 ft. structural grid
- Public space is on an elevated slab with basement below galleries
- Loading dock and East Building collections storage are connected via a service tunnel
- Pre-cast insulated panels form building's weather envelope beneath metal panels
- Basement level energy-efficient mechanical system supplies conditioned air to galleries through 1" slot at top art walls – return through 1" slot at bottom of walls

### **Building Exterior**

- Fixed aluminum louvers, above linear skylights, direct north light into galleries
- 230 overlapping anodized aluminum skin panels, with reflective stainless steel infill
- Glass curtain-walls define five courtyards
- 50% of exterior building envelope is glass

### **Building Interior**

- 65,000 sq ft galleries increased NCMA's Permanent Collection space by 54%
- Open space plan: no gallery has four corners
- 11,500 sq. ft. central sculpture hall organizes primary visitor circulation
- 16 ft-high fixed and 12 ft-high movable art wall systems
- Continuous white oak flooring: sprung-floor system for physical and acoustic comfort
- 360 cast fiberglass ceiling coffers
- Prismatic and fabric filters diffuse daylight into galleries

### **Gallery Lighting**

- Designed to view art with full-spectrum light, meeting conservation standards
- Light levels allowed to vary with season, weather and time of day
- Lighting calculated to meet cumulative annual "light budget" for artwork
- 360 skylights with diffusers and fabric filters control for quantity of light
- Frit pattern (3/16" lines) on all glass walls reduces light into galleries by 50%
- Mechanized shade system prevent direct sunlight penetration into galleries
- Fabric curtain system, with various densities control light levels through glass walls
- Two-circuit computer-controlled track lighting is coordinated with daylight levels

## Interior Design

- Exhibition Cases and Mounts: NCMA Design and Production
- Graphics: Pentagram, New York with NCMA Graphic Design
  
- Track Lighting: LiteLab, New York
- Curtains: Mary Bright Studio, New York
- Walls: Benjamin Moore "Super White"
  
- Gallery Benches: Thomas Phifer design, made in North Carolina
- Café: Tables and Chairs by Fritz Hansen
- Lobby: Chairs by Fritz Hansen; Tables by Eero Saarinen
- Information Desk: Chairs by Ray and Charles Eames

## Green Design

- Heating and cooling systems perform at 45% over ASHRAE (engineering) standards
- Daylighting reduces consumption and heat-load on mechanical systems
- Insulated windows and skylights with low-emissivity coating reduce heat penetration during the summer and heat loss in winter
- Water collected from the building's roof, bio-cell gardens, and roads is stored in a 90,000-gallon cistern used to irrigate gardens and replenish pools
- Cistern is tied to a comprehensive stormwater management system – connected to the renovated Museum Pond which filters pollutants entering the Neuse River basin.
- West Building is registered for Silver LEED Certification

## 164-Acre Museum Campus

- Three miles of recreational and site-specific sculptures in Museum Park, built on site of former state prison.
- Commissioned artists' project in the Park include Bill and Mary Buchen, Chris Drury, Martha Jackson-Jarvis, Barbara Kruger, Ledelle Moe, Roxy Paine, Thomas Sayre, Vollis Simpson, Steed Taylor, Ursula von Rydingsvard, and Tim Purus
- 650 ft. pedestrian bridge connects museum's Greenway to regional trail system
- Park environment managed in partnership with N.C. State University, through the Partnership for Art and Ecology

## Building Credits

Owner:	North Carolina Department of Cultural Resources North Carolina Museum of Art
Design Architect:	Thomas Phifer and Partners–New York, N.Y.
Architect of Record:	Pierce Brinkley Cease + Lee Architects–Raleigh, N.C.
General Contractor:	Balfour Beatty Construction Barnhill Contracting Company
Landscape Architect:	Lappas + Havener, PA–Durham, N.C.
MEP Engineers:	Altieri Sebor Wieber, New York, N.Y. Stanford White Associates
Structural Engineers:	SOM–Chicago, I.L. Lassiter Hopkins, Raleigh, N.C.
Electrical Lighting:	Fisher Marantz Stone–New York, N.Y.
Daylighting Design:	Arup–London, England and New York, N.Y.
Civil Engineers:	Kimley Horn, Raleigh, N.C. ArtifexED, Inc., Denver, C.O.