ROCHE LEARNING AND DEVELOPMENT CENTER
Indianapolis, Indiana

CATEGORY | New Construction
PROJECT TYPE | Learning and Development Center
ADDRESS | 9115 Hague Road, Indianapolis, IN, 46250
COMPLETION | April 2017
The Learning and Development Center for Roche Diagnostics, a Swiss-based medical diagnostics company, is a study in architecture’s role in defining corporate character. Extensive use of bright white metal within a modernist palette of glass and steel establish the company’s European brand standards and reinforce consistent brand identity on a campus of existing buildings alongside a well-traveled highway corridor northeast of Indianapolis, Indiana.

Comprised of three distinct program zones – a VIP sales suite, customer training labs, and seminar rooms – organized around double-height, daylit spaces, the 87,000-square-foot building embodies the company’s longstanding commitment to environmental sustainability, energy efficiency and an architectural philosophy of “Spartanic elegance.” An innovative series of functional elements within the building reflect the scientific functionalism of Roche’s products.

Northerly facing, vertical sawtooth skylight monitors introduce daylight deep into the center of the building’s nave-like plan. High-performance exterior venetian blinds reduce thermal heat gain during the summer and admit passive heat during the winter. Radiant panels integrated into the exposed ceiling balance the building’s heating and cooling needs, which are supplemented by an underfloor air distribution system.

The second-floor seminar rooms overlook an open, “hands-on” training superlab which occupies the majority of the ground floor, where open, flexible, breakout spaces abut formal meeting rooms. Art and architecture merge throughout the building, including a 300-foot-long graphic history wall, designed by the architect, to visualize Roche Diagnostics corporate and community history.

The raised access flooring utilized in the construction of the UFAD system also allows for efficient routing of building services, and a modular electrical wiring system allows for flexible work spaces that accommodate a variety of activities without impacting basic building services. When new diagnostic equipment or training needs are implemented within the lab, the flexible design reduces downtime and maximizes long term operational cost savings.

LED luminaries are used for all lighting, maximizing energy efficiencies provided by daylight harvesting, and include fully dimmable features and controls, incorporated with occupancy sensors linked to the HVAC demand-control ventilation system.

The current building design allows the campus to operate below its current peak electrical demand, even though the new Training and Development Center has increased the company’s overall campus footprint as measured by total square footage. With design strategies incorporating thermal comfort, daylighting, ventilation, and acoustics, the company continues to drive its commitment to leadership in sustainability.

The building’s simplicity, efficiency, and adherence to strict sustainability standards reinforce Roche Diagnostics’ corporate ethos through an architectural lens.
Roche Diagnostics is a globally recognized sustainability leader on the Dow Jones Sustainability Index, as well as the CDP Water A-List and recognized as one of the top 50 “companies that care for their communities,” according to People Magazine. It was a requirement that the Learning and Development Center comply with Roche’s corporate K18 guidelines for environmental design, construction, and operational mandates over the long term. In accordance with these standards, the Learning and Development Center uses a series of high-performance sustainability strategies that also have the potential to meet or exceed LEED Platinum requirements and is designed to surpass the energy goals of the AIA 2030 commitment.

A series of northerly facing, vertical sawtooth skylight monitors, introduce daylight deep into the center of the building. High-performance exterior venetian blinds reduce thermal heat gain during the summer and admit passive heat during the winter. A radiant panel heating and cooling system integrated into the ceiling construction balances the building’s heating and cooling needs and an underfloor air distribution (UFAD) system provides ventilation and supplemental cooling as required, while improving indoor air quality.

To address needs for indoor air and environmental quality, all major interior architectural surfaces use durable, long-lasting, inherently inert materials, such as limestone flooring and glass wall panels for the lobby, lab spaces, and training rooms. Additionally, the program supports large, open, interior spaces, which minimizes the use of materials for room divisions and surface materials.
The Learning and Development Center is the highest performing building on Roche Diagnostics’ Indianapolis Campus, in reference to its aggregate energy and carbon reduction strategies, and sets the sustainability standard for future campus development. A combination of daylighting, LED lighting, automated exterior sunshading, and radiant panel systems accomplish a pEUI of 48.0 kBTU/sf/yr and a regional energy reduction of 60.5 percent compared to the commercial building energy consumption survey (CBECS). The lighting power density is 0.618 w/sf.

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**Materials:**

**Radiant Cooling and Heating Ceiling System**
- Lindner Plafotherm E 214 suspended radiant perforated ceiling with acoustic fleece backing.

**Monitor Sidewalls**
- Lindner Free 910 Wall Cladding with customized steel sidewall panels perforated for return air path.

**Monitor Ceilings**
- Lindner LMD-TS 100 customized composite panel made with Aloned reflective aluminum sheeting, including a 1100 G Finish (Deco Prime II).

**Raised Access Floor – Stone Finish:**
- Lindner Nortec 40 ST composite (Jura Beige Limestone, Honed) raised access floor panel with stone finish, factory applied.

**Raised Access Floor – Vinyl Finish:**
- Lindner Nortec 40 ST composite raised access floor panel with factory applied vinyl finish.

**Carpeted Raised Access Floor:**
- Tate raised access floor panel with carpet tile overlaid in the field.

**Interior Glass – Entry Lobby Wall:**
- Bendheim SOMC 115435 etched 0.25” white glass.

**Interior Glass – Seminar Rooms:**
- Viracon composite build-up 0.5” clear tempered glass with PVB interlayer, STC 40

**Wood Veneer (Seminar Room Doors):**
- Tabu Ash with plain slice cut and gray aniline dyed finish.

**Wood Veneer (VIP Millwork and Stair 4):**
- Tabu Ash with plain slice cut and white aniline dyed finish.
AUTOMATED SUNSHADES + CANOPIES

Exterior aluminum sunshades support sustainable heating and cooling.
Daylight fills the interior through transparent walls and skylight monitors.
BAR STOCK COLUMNS

5” solid steel columns rise 32 feet to support an integrated structural monitor bay. Moving the column off the center of the beams emphasizes structural detail.
A 300-foot-long glass wall integrates design and architecture to visualize Roche Diagnostics’ corporate history.