

INTELLIGENT BUILDING GETS SMART LIGHTING CONTROLS

In April 2011, the Van Andel Institute's (VAI) 240,000 square-foot Phase II biomedical research center in Grand Rapids, Mich., earned LEED Platinum status. The center relies on intelligent building controls to achieve both energy and operational efficiencies, using open protocols for communications and to ensure that the facility is adaptable to technology upgrades. The eight-story, \$178 million addition features a glass roof that introduces an abundance of natural light throughout the facility, including open laboratories. In addition to labs, the building includes offices, meeting rooms, a 90-seat conference center, a 100-seat cafeteria, an interactive discovery wall and a library.



"Van Andel Institute's Phase II building incorporates a multitude of green initiatives beyond what seemed possible for a research institute just a few short years ago," says David Van Andel, VAI chairman and CEO.

An advanced lighting control system was a contributor to the LEED goal. A key consideration in

selecting WattStopper controls was the availability of both open and closed loop photo-sensors for optimal daylight harvesting solutions in the many different types of daylight spaces throughout the facility. These controls can typically reduce lighting energy costs by as much as 20 to 50 percent without compromising lighting quality, according to the company. And, since savings coincide with the time of day when utility companies experience peak demand, daylighting provides a natural form of demand response.

The lighting system integrates with other building systems such as HVAC, fire, security and card access. The system operates autonomously to control lighting, but shares lighting status, lighting levels, and energy usage via BACnet.

The system is compatible with Tridium's Niagara framework, which helps facilitate an open and interoperable approach for controls by allowing the IT enterprise, building automation controls systems and underlying mechanical systems to work in tandem. The controls platform supports peer-to-peer communication, which enables the system to initiate requests for data across different applications and subsystems. Incorporating the same core technology and operating software in HVAC and lighting has enabled the facilities management team to easily adapt to ever-changing operational scenarios.

WATTSTOPPER: CIRCLE #200

MAINTENANCE COATINGS for light to medium duty applications include primers, dry falls, enamels, epoxies, urethanes and floor coatings. Designed for ease of application, strong adhesion and resistance to corrosion, chemicals, impact and abrasion, according to the company. **PRATT & LAMBERT: CIRCLE #201**

WATER-BASED ROOFING ADHESIVE has coverage rates up to 50 percent better than previous application methods, according to the company. Sarnacol 2121 is applied only to substrate, as opposed to solvent-based adhe-

FIRE FIGHTER TELEPHONE SYSTEM supports up to 72



connections with up to 10 phones in use at one time. Farenhyt IFP-FFT operates on a single loop of standard wire. Fully supervised system. Compatible accessories include handsets, lockable cabinet with connected handset and connected telephone cabinet with breakable glass. **SILENT**

BACNET-BASED CONTROLLER

features built-in humidity sensor and integrated wireless receiver. TouchView-W communicates with occupancy sensors of doors and windows. Reports directly to 11 preloaded applications. Each application supports passive infrared and space temperature setbacks. Stand-alone solution, network multiple units or incorporate into BAS.



TREND CONTROL SYSTEMS: CIRCLE #204

ELECTRICALLY COMMUTATED PLUG FANS

offer intelligent control, changing the fan speed to allow cooling unit capacities to adapt quickly to changing room conditions. Available in all down-flow models of Liebert CW and Liebert DS CRAHs. Design allows the fan assembly to be lowered below the raised floor.

EMERSON NETWORK POWER: CIRCLE #205

ELECTRONIC LOCK CYLINDER

offers benefits of electronic lock systems with no wiring, door or frame modifications needed for installation. M3 Logic can be retrofitted into internal and external locks; uses one key. Holds up to 1,000 audit events. Features multiple time schedules and offers both visible and audible status feedback.



MEDECO SECURITY LOCKS: CIRCLE #206

CHAIRS utilize back motion and breathable mesh for comfort. Torsion Air's flex mechanism



conforms to user's back. Combines design of original Torsion chair with

updated shell and mesh back. Collection includes nesting chairs, task chairs, and stack chairs in three styles: four-leg, sled base, and cantilevered sled base. **KI: CIRCLE #207**

AIR CONDITIONER is designed for rooms that produce dense heat loads, but cannot be air-cooled due to lack of space. The CMW30 water-cooled, ceiling-mount unit's cooling capacity is rated at 29,400 Btu/h total and 22,000 Btu/h sensible for computer rooms. Measures 20 inches high. Built-in mounting bracket,

