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## High-Tech Approach to Hi-Tech Magnet School

The concept of a magnet school is inherent in its name since its goal is to attract students, through superior programs, faculty and facilities, from a wide variety of communities and socioeconomic backgrounds. Students and their parents choose to go to the school. It is a perfect example of what to expect of facilities in the future.

When the governance committee for the Two Rivers Magnet Middle School in East Hartford formed to explore the idea of a five-town magnet school, they decided to base the concept curriculum for the school on technology as an integral part of the overall curriculum. The site selection was based on the use of the flood plain forest at the confluence of the Hockanum and Connecticut rivers as an outdoor laboratory around which to focus a curriculum of science and applied technology.

Du Bose Associates utilized Autodesk Architectural Desktop and Autodesk VIZ® for three-dimensional (3D) design and documentation work, including conceptual studies, design development, construction documentation, and construction administration. In the conceptual phase of the project, the architects primarily utilized intelligent space objects and other 3D conceptual modeling tools, adding additional architectural objects, such as walls, doors, windows, and stairs, later in the design phase. Additional annotation in the construction document phase was incorporated. The architects modeled the building in three dimensions so that at any interval, elevations, sections, axonometrics, renderings, or animations could be generated to explain the design.

At the next phase of design modeling, the team began to incorporate the design objects, such as walls, doors, windows, stairs, railings, and roofs along with the space diagrams of each floor into individual floor model files. These main building digital components were added at each level as intelligent objects that were used throughout the design and documentation process. Designing the building with digital versions of typical



wall-door-window construction items enabled them to sculpt the design three dimensionally in a seamless fashion.

(please see Magnet School on page 3)

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**Welcome New Members**

- Bostwick & Hopper Architects, LLC
- Desman Associates
- Independent Materials Test Labs, Inc.
- J. M. Coull, Inc.
- Network Interiors, Inc.
- Perini Building Company, Inc.
- Perkins Eastman Architects PC
- Richard G. Jacques Consulting, LLC
- Tighe & Bond, Inc.

**Fifty People Attend Technology Workshop**

More than 50 people attended Session II of the Technology Breakfast Seminar Series. The program, Security: It's Not Just for Hackers Anymore, was held on October 31, 2002, at the Marriott Rocky Hill.



This seminar focused on what's required to make facilities more secure. Discussion included security issues while designing the US Embassy in Tunisia, the state's new Emergency Operations Center and the changes to security guidelines for State-funded projects, as well as security at various private Connecticut facilities, and current and emerging technology. ▲

**High Performance Work Environments**

Research has shown that there is a distinct competitive advantage to linking your company's physical environment to your business goals. Simply put, a company's physical space enhances its ability to be successful. With the ever-changing nature of today's business climate, organizations are developing specific real estate strategies to create highly flexible work environments. Can the environment be flexible enough to meet the constant need to change, adapt and leverage the company's ability to develop and sustain their intellectual capital? As our economy moves towards a more autonomous knowledge-based workforce, this flexibility is critical for success.



This paradigm in work environments demands that companies not only look at the interior space, but also how the space relates to the physical infrastructure. Does the space provide the needed flexibility? Can it be modified quickly, efficiently and economically? Can it be reconfigured to change as new business goals are developed? These are just a few of the questions decision-makers need to answer as they plan their next work environment.

Work environments generally include three common elements: architecture, furniture, and technology. The interior architectural elements define physical space and create various levels of privacy. Furniture is

made up of tools that help people create and manage information. Technology is made of two elements: appliances, which are devices that we use every day, and infrastructure, which is the power and cable system that allows the appliances to work.

Steelcase has been working to not only develop a platform of integrated products to serve this need, but also has instituted these basic principles into its own new facilities. This development is based on collaborative

research with leading companies, universities and business consultants. The program includes the architecture, (raised floors demountable walls) furniture, (systems, desks, seating, storage) technology appliances (electronic communication and visual display devices) and technology infrastructure (modular power and zone cabling) that support the variety of work styles that make up an organization. When applied as a unified concept this platform creates an environment that supports the company's real estate goals and its business goals.

There are many benefits of constructing a flexible workspace.

(please see High Performance on page 4)

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## Magnet School

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During the construction phase of the project, Du Bose Associates utilized Citadon, a web-based project management collaboration tool.

The project team included Pinnacle One as owner's representative; Bartlett, Brainard & Eacott, Inc. as construction manager; Jeter, Cook and Jepson Architects, Inc. as associate architect; Fuss & O'Neill Inc. as landscape architect; BVH Integrated Services as MEP/Structural engineer; CCR Pyramid as technology consultant; and Crabtree McGrath Associates, Inc. as food service consultant. All parties involved in the construction of the project were connected to the project extranet, thus allowing access to information such as submittals, RFI's, field reports, and other related correspondence.



Building projects today are beginning to demonstrate the future of facilities. The Two Rivers Magnet Middle School offers a brief glimpse of not only the need to integrate new and ever-changing technology into the facility itself, but also the need for the design and construction team to embrace technology to use to their and client's advantage when creating the facility. ▲

## F O C U S

### Member/Guest Social - Timexpo® Museum

More than 60 people attended the Member/Guest Social held at the Timexpo® Museum in Waterbury, CT on January 15, 2003, from 5:30 - 7:30 pm. The museum, located in the remaining two renovated buildings of the historic Scovill Manufacturing Company, boasts three floors of exhibits, featuring a vast collection of timepieces and interactive displays covering both the history and future of time keeping. ▲



*Bill Cianci, executive director, Construction Institute; Joel Weinberg, Select Energy Contracting; Pat Quinn, Petra Construction Corporation*



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*Tom Fusciello, Frank E. Downes Construction; Nancee Gel, Security Specialists; Cynthia Abraham, DPM (CT)*



*Ed Callo, RECON; Peter Shmigelsky, City of New Haven; Dean Azzam, Aztech Engineers*

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## High Performance Work Environments

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For example, starting with a raised floor environment, a modular power and zone cabling system is faster and safer to install and is infinitely more flexible than a hard wired system. Reconfigurable walls provide many advantages over a traditional drywall office. Speed, ease and cost of change along with the financial benefit of accelerated depreciation (7.5 years versus 39 years) provide the necessary return on investment. In addition, there are the added environmental benefits of not creating additional landfill waste.

The benefits to creating a highly flexible work environment are broad enough and tangible enough to satisfy all of the stakeholders involved in the building process. Aesthetically, you create an environment that has dimensional compatibility and a consistent physical interface. Functionally, you manage your facility strategically as an asset by easily changing your building components. The highly flexible work environment created provides real estate efficiencies and long-term cost benefit as well as maximizes your return on investment. ▲

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interior design

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