

Green office building planned

Poughkeepsie surgeon employs innovative architect from Canada



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FISHKILL - Dr. Kenneth Hansraj has another specialty besides spinal surgery.



Dr. Kenneth Hansraj proposes building this office space, designed by Canadian architect Dermot Sweeny, in the Town of Fishkill. (Courtesy artwork)



The Poughkeepsie doctor believes office buildings need a new kind of backbone, a structure and mechanical innards that boost energy efficiency while making it healthier, admitting more light and fresh air than one finds in ordinary architecture.

So he's turned developer and engaged a Toronto-based architect, Dermot Sweeny, who has designed several million square feet of new-age "green" office space for clients such as Microsoft Canada. Sweeny has drawn a 39,000-square-foot building, LandWorks Professional Center, that Hansraj plans to build on 3.5 acres he owns in the Town of Fishkill between Old State Road and Route 9.

Hansraj saw some of Sweeny's works in the Toronto area and became intrigued.

"I saw Dermot's Microsoft building go up and the Loblaw's building, and I contacted them," Hansraj said.

Right now, his goal is to sign up more tenants to make the place a "go" financially. When he succeeds, there will be an eye-catching, different kind of office here that may answer a challenging question for businesses.

And that is: How do you survive the growing energy cost-crunch and still get an office that's bright and airy?

Sweeny said in an interview he's done it, but his group had to rethink the way a building is put together and get up to date with what really happens in a contemporary office building.

Today's offices generate enough of their own heat from lights, machines and people inside that cooling has become a bigger issue than heating.



The proposed LandWorks Professional Center uses a variety of green technologies and approaches for heating and cooling. Notable features are the vast areas of glass and high ceilings. (Courtesy artwork)

Heating, cooling issues

Offices didn't use to be air-conditioned and cooling was by opening windows. When air conditioning became common in the 1960s, office design called for sealing up the box and reducing windows and tinting the glass to cut heat gain, but that meant more lights were needed. Sweeny said management began to pack more people into spaces, and then the office equipment boom added lots of inside heat load, including computers.

And people were complaining they were either too hot or too cold.

"We started thinking hard about this, and coming up with new approaches to design," Sweeny said.

They wound up changing a lot. The first item in view is that glass is back. Lots of it, practically the whole wall, and with some windows that open again. The rooms inside are high, nearly 11 feet rather than the typical nine.

"With extra height, it feels better," Sweeny said. It also helps with the air-flow arrangements and allows pleasant, low-glare indirect lighting, where fixtures bounce light off the ceilings.

Sunlight is controlled partially by sun shades. These are paired with "light shelves" inside for "daylight harvesting." Sensors cut back inside electrical lights if there's enough natural light.

The airflow plan is "a huge shift in thinking," Sweeny said. Instead of the usual drop-ceiling with ducts, he uses the entire space between floors, about 14 to 18 inches, to distribute air. All office workers can control the amount of air they get by adjusting a floor grate nearby.

Heating is still required in winter, but not nearly as much, Sweeny said.

"We still put in boilers," but they're used only on the coldest days. "Microsoft ran 11 days last year," he said.

Energy efficiency is goal

Hansraj and Sweeny are targeting a Leadership in Energy Efficiency and Design, or LEED, designation. Hansraj expects energy efficiencies of 50 percent to 60 percent compared with a conventional building.

While Sweeny's group has done several such buildings in Canada, it has not yet done one in the U.S.

"This will be our first foray and it would be a great thing for you guys to see," Sweeny said.

Hansraj has preliminary approval from the Town of Fishkill planning board, Clerk Debbie Davis said. Hansraj said he'll go back for a final OK when he figures he has enough tenant commitments, which is what he's working on now.

After years of work, he's toughing it out in a down economy in which there's lots of space on the market. He's counting not only on the growing trend of green buildings but also ones that are nicer to work in.

"You're getting green space, friendly space, happy space at what you're paying for a standard commercial building," Hansraj said.