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## Transformers

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### Transforming high vacancy rates into profitable retrofits

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In Alameda, Calif., a single-screen movie theater was restored to its original purpose and Art Deco glory after incarnations as a roller skating rink and gymnastics studio, following its unsuccessful division into smaller screening rooms in an attempt to keep up with Cineplexes in the 1970s. In Greenwich, Conn., a 9,800-sq-ft stone barn — originally built in 1902 as a cold storage facility for local orchards and then expanded as a sports complex in 1985 — was changed into an art study center and galleries for a private arts foundation. In Orlando, Fla., a vacated retail space in a touristy area was transformed into a winter wonderland, a bar kept at a constant 27°F, complete with expanded electrical service to support the condensing unit and two evaporators, along with a 60kW standby generator (**Photo**).

These renovation projects are just a few examples of the shift from new construction to retrofit caused by the slowdown in non-residential markets recently. “Three and four years ago, our primary focus was on larger new projects,” says Matthew R. Buecker, project manager/electrical designer, Ingenuity Engineers, Orlando, Fla., the firm that performed the electrical design for the Ice Bar project.

Then, retrofits were considered nothing more than a steady stream of cash, whereas the bigger projects brought in higher fees and more lucrative contracts. However, the new construction projects have since “dried up,” Buecker explains, so the firm is performing more tenant improvement renovation projects. “What was once a very unglamorous project is all we’re doing now,” he says.

Non-residential construction has been hard hit in 2009, according to industry analysis. For example, the Washington, D.C.-based American Institute of Architects (AIA) Consensus Construction Forecast Panel is projecting a 16% decline in non-residential construction activity this year and an additional drop of almost 12% in 2010. McGraw-Hill Construction, New York, is reporting that construction starts on non-residential buildings were down 43% through the first five months of the year compared to the same period in 2008. In its “Second Quarter 2009 Report,” FMI Corp., Raleigh, N.C., is expecting a 13% decline in total construction for 2009 and a 14% drop in non-residential construction for this year. In addition, the firm is reporting project delays four times the normal rate and project cancelations five times the normal rate.

Commercial projects — office, retail, and hotel facilities — are forecast to be the hardest hit, approaching a 25% decline in 2009 and adding an additional 15% drop in 2010, according to McGraw-Hill Construction's outlook. This is largely due to the 1.1 million jobs lost in the industries occupying the office sector, leading to sharp decreases in demand for office space. As unemployment approaches 10%, vacancy rates have reached their lowest mark in a decade. In the first three months of 2009, leasing activity fell 31.5% nationwide, compared to the fourth quarter of 2008, according to Jones Lang LaSalle, the Chicago-



An unused annex in an Atlanta synagogue was reincarnated as a preschool, complete with an update to the 50-yr-old electrical system. (Photo courtesy of Ingenuity Engineers)

based global real estate services firm specializing in commercial property management, leasing, and investment management — and stayed almost 50% lower than levels achieved in the first quarter of 2008.

However, as companies continue to shed jobs, sublease space has become more available. In the first quarter of 2009, for example, sublease space increased more than 11 million sq ft, according to Jones Lang LaSalle, and has grown more than 33% over the last six months. Not surprisingly, its greatest contributors come from the finance, technology, media, residential real estate, and retail markets. “Tenant improvement always has been a roller coaster,” says Buecker. “You can be really busy one month, and then it slows down the next month. But over the past year, it’s just been a steady inflow of work, changing space from mortgage companies and lawyers to health care, particularly pediatrician or dental offices” (see **Health Care Does More With Less** below).

## Sweetening the deal

Companies that at one time were making plans to build their own freestanding facility are deciding to renovate their current location or leasing a tenant suite at an existing office building and renovating that. “We’re finding that to be a lot more common now, because the office building owners are cutting their rents and their lease agreements just so they can have a tenant in there,” says Buecker, using a preschool project built in an unused portion of an Atlanta synagogue (**Photo**) to illustrate this point.

Over the last decade, the synagogue’s congregation had diminished, leaving an annex to the building empty. To encourage the preschool to move in, the facility upgraded its 50-year-old electrical system, which would not have been sufficient for the school’s lighting and power requirements or to support the mechanical changes, such as replacing the air-conditioning wall units with central air and heating. “The synagogue made it very attractive to the day care to come into the building,” says Buecker. “The day-care owner told us that he couldn’t turn his back on it. It was too good of a deal.”

In the United States, it’s common for owners and investors to offer tenant improvement allowances, depending on the tenant’s credit rating and terms of the lease. Traditionally, retail rents are quoted “as-is,” and tenant-improvement costs are added separately, while office rents are quoted with a tenant improvement allowance figured into the rent. As a rule, these allowances shrink in tight markets and expand in soft markets, according to Jonathan D. Miller, a partner and co-owner of New York-based Miller Ryan, a strategic marketing communications consulting firm to the financial services and real estate industries. “In really soft markets, allowances can approach ‘turnkey’ and in combination with other concessions, such as free rent, moving allowances, lease pickups, and above-market broker commissions, it’s not uncommon for the net present value of a lease to turn negative, sometimes by as much as several dollars per sq ft per annum,” Miller



Hensel Phelps Construction transformed the majority of space in an empty commercial building into its new headquarters. (Photo courtesy of Ingenuity Engineers)

writes in his blog, TrendCzar at [trendczar.typepad.com](http://trendczar.typepad.com). “Why would a landlord do this? Well, fixed operating expenses can easily run from \$8 to \$20 per sq ft per annum, so even if the lease is a net loser, it at least diminishes the carrying cost of fixed expenses on vacant space.”

Be that as it may, in this soft market the tightening of credit standards has made it difficult for some owners and developers to procure loans for tenant improvement allowances, which depend on the healthy cash flow of the building. Some landlords are experiencing difficulty providing these allowances, according to James Pitts, senior VP in the Office Transaction Group of commercial real estate advisory firm Grubb & Ellis, Santa Ana, Calif. Accordingly, as landlords lose the ability to provide financing as a part of leasing benefits, tenants will have to decide if they should invest in balance sheet capital expenditures in the building.

## Existing systems

Second-generation space can provide salvage value through hand-me-down systems, especially if the replacement business is similar to the departed one. “Our design is focused on trying to use existing systems as much as possible,” says Buecker. “If we find that the lighting is sufficient and it’s not an antiquated product, we will make every effort to reuse that existing lighting. In our drawings, we’ll call out for it to be relocated as necessary in order to accommodate the new layout and to re-lamp all existing fixtures, but we absolutely make our best effort to keep those lights as well as all the electrical distribution equipment, receptacles, and electrical panels. We’ll make every effort to keep as much of that in place if that area of the building is not

changing.”

Yet, if there are changes to the space, using existing facilities can also provide unique challenges not inherent in new construction. For instance, for its Southeast District Office in Orlando, Fla. **(Photo)**, Hensel Phelps Construction Co., Greeley, Colo., chose a large, vacant building that was originally designed to house multiple tenants. Because the construction company was taking over 20,000 sq ft of the building, the existing meter center required modification with both a tap box and a CT cabinet to feed the 1,000A service. “All those meter centers that someone had envisioned once upon a time never got used,” Buecker says. “If it's a small tenant, you just tap into one of the meters and feed a new panel, but due to the complexity of this electrical system, it wasn't that easy. We had to do quite a bit of surgery to that meter center.”

In existing buildings, problems such as this are fairly commonplace. It can be difficult for owners and developers to anticipate the needs of their future tenants. “Around Orlando, they tend to undersize the electrical systems,” Buecker says. “They think everyone's just going to come in and want a little office space, but it's just not the case anymore.”



This retail space renovation required an enlarged electrical service and backup generator to support the mechanical system. (Photo courtesy of Ingenuity Engineers)

## G-rated retrofits

The U.S. Energy Information Administration estimates that by 2030, more than 250 billion sq ft of building stock within the United States will consist of renovated existing buildings. Most of these renovations will implement components of green building. As a result, green retrofits will more than triple in annual revenue to \$6.6 billion by 2013, according to Pike Research's study, “Energy Efficiency Retrofits for Commercial and Public Buildings.”

But some companies aren't waiting. Currently, owners of conventional buildings are aggressively pursuing green renovation projects, which tend to be smaller and can have a shorter payback period than new construction and added benefits **(Green Space Gainers Higher Rental Rates** on page 21). By 2013, the overall green building market (both residential and non-residential) is likely to more than double from \$96 billion to \$140 billion, according to McGraw-Hill Construction (see **Home Remodeling Gets Boost from Going Green** on page 23). A recent survey, the “Green Practices Study,” by the Global Facility Management Association (Global FM), Brussels, Belgium, reveals that 92% of respondents are working toward making their facilities more sustainable. “It's the fastest growing trend in the green space, in terms of project size and the number of projects that are signing up for doing the LEED for Existing Buildings (EB) program,” says Jerry Yudelson, author of “Greening

Existing Buildings” and green building consultant at Yudelson Associates, Tucson, Ariz. “We see a big trend emerging, and it's likely to accelerate.”

For example, in California's Bay Area, applications for LEED New Construction (NC), LEED Commercial Interiors (CI), and LEED Core and Shell (CS) certification have not increased at the levels previously expected. However, the number of projects applying for LEED EB has increased from 78 applications in 2008 to 88 projects as of the beginning of the third quarter 2009. These 88 existing buildings represent nearly half of the total number of LEED applications in the area, compared to only a third of all projects in 2008. “There's been an increase in the number of LEED EB projects getting certified and registering this year,” says Chris Cheatham, LEED AP, green building and construction attorney, Crowell & Moring, Washington, D.C., and author of [www.greenbuildinglawupdate.com](http://www.greenbuildinglawupdate.com). “It looks like it may overtake the other systems.”

Green retrofits range from simply replacing T12 ballasts or lamps with T8 or T5 ballasts/lamps to updating entire systems and adding controls in order to achieve one of the green building certifications, such as Energy Star or the Washington, D.C.-based U.S. Green Building Council's (USGBC) Leadership in Energy and Environmental Design (LEED). Some projects include a component of renewable energy, such as solar panels, although the up-front costs are higher and the payback time longer than other greening strategies. “Obviously, there will be work in re-lamping, changing out ballasts, and putting in motor controls with variable-speed drives and building automation systems for controls contractors,” says Yudelson. “There's going to be a lot of activity for the electrical contractor and designer in this space, because most of the energy use in buildings is electrical.”

## Sidebar: Health Care Does More With Less

Health care, like other relatively stable institutional sectors — such as education and religious facilities — will experience

relatively large declines this year. (For 2009, Raleigh, N.C.-based FMI Corp. is predicting construction put-in-place to drop 6% for health care, 8% for education, and 15% for religious). Facing devalued portfolios, increased competition from retail merchant-based clinics, and delayed elective procedures due to patients' loss of health insurance coverage, hospital facilities have shifted their focus from new construction to renovation.

In the January/February issue of *FacilityCare*, Ode Keil of the Ode Keil Consulting Group, Kideer, Ill., predicted health care facility managers will be asked to do more with less. "The focus is likely to be on energy conservation, extending the life of existing infrastructure, renovating existing space at low cost rather than building new, and maintaining compliance with accreditation standards and regulations," he says.

Recently, the Healthcare Advisory Board, comprised of physicians and other health care professionals who share their opinions and views on a variety of health care issues by participating in opinion surveys, proposed a distributed hospital plan, which would shift the focus off of large buildings in favor of multiple access points to care, more specialty hospitals, and freestanding emergency departments. These flexible facilities could adapt better to a health care organization's changing needs, according to Suzanne A. O'Connell, Francis Cauffman Architects, New York.

Whether these renovations take place in the hospitals or in converted office spaces, health care renovations mean a change in electrical systems. "We're seeing a transition from conventional electrical devices — computers and monitors — to specialty health care items, such as floor boxes for the chairs and areas where a higher light output is needed because they're doing in-office procedures," says Matthew R. Buecker, project manager/electrical designer, Ingenuity Engineers, Orlando, Fla. "There are a lot more electrical specialty items that the doctor's have. We did a dermatology office where they needed provisions for their laser, where they have overhead adjustable light."

## Sidebar: Green Space Garner Higher Rental Rates

According to McGraw-Hill Construction's "Green Outlook 2009: Trends Driving Change" report, the decrease in operating costs is the most-cited benefit (13.6%) of green retrofits, but it's not the only one. A recent report from Boulder, Colo.-based Pike Research, a market research and consulting firm that provides analysis of global clean technology markets, says the major driver for these projects isn't energy savings but broader policy and business objectives, such as lower carbon footprints, higher employee productivity, and higher property values. Compared to conventional space, certified green building spaces experience fewer vacancies and higher rental rates.

In fact, the more highly rated the buildings, the higher the rental rates, reveals a survey of more than 300 green-certified buildings conducted by Henley University of Reading in the United Kingdom. The survey shows price premiums were 10% and 31% higher, depending on the certification. A separate study by CoStar Group, Bethesda, Md., reveals green renovations for commercial property can equal premium rents \$11.24 per sq ft greater than conventional competitors. In addition, they can add an average of \$171 more per sq ft onto the average selling price, according to Washington, D.C.-based U.S. Green Building Council estimates.

## Sidebar: Home Remodeling Gets Boost from Going Green

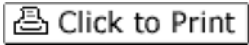
Decreases in home improvement spending will average around 11% for the next several quarters, according to the Leading Indicator of Remodeling Activity (LIRA), released recently by the Remodeling Futures Program at the Joint Center for Housing Studies of Harvard University, Cambridge, Mass. The program is a comprehensive study of the factors influencing the growth and changing characteristics of housing renovation and repair activity in the United States. Despite low financing costs for home improvement projects, low costs to remodel — 20% less than they were in 2006, according to [www.remodelormove.com](http://www.remodelormove.com) — and recent rising home sales, the overall outlook for the industry in 2010 is still depressed. "Weak home prices and decreased cost recovery for most types of remodeling projects, however, discourage owners from pursuing typical upper-end improvements," says Kermit Baker, director of the Remodeling Futures Program at the Joint Center for Housing Studies.

In addition, the most recent semiannual RemodelorMove.com Remodeling Permit Activity Report of 5,000 homeowners shows a 20% decline in the number of remodeling permits issued during the first quarter of 2009, compared to the same quarter in 2008. Yet, the greening of U.S. homes holds promise for the housing industry. By 2013, the overall green building market (both residential and non-residential) is likely to more than double, according to New York-based McGraw-Hill Construction's Green Outlook 2009 report, "Trends Driving Change." The report also reveals 40% of green home builders report a marketing advantage in selling green homes in today's housing slump, while 70% of potential home buyers claim they are more inclined to buy a green home in a down market.

Even more than building new green homes, retrofitting and upgrading older homes would reduce overall energy usage the most. "We obviously can't solve the problems by tearing down all our inefficient housing stock and replacing it with new," explains Ray Tonjes, chairman of the National Association of Home Builders' (NAHB), Washington, D.C. Green Building Subcommittee. "We need to make some significant improvements to our existing homes."

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