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## flexible and modular interior construction

# Flexible building products deliver sustainable results to modern commercial facilities

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As the principal of Spaceworks Architectural Interiors, I believe that flexibility is the key to the modern commercial facilities, from the building shell to the individual work area. Movable walls on top of modular carpeting over low-profile access flooring housing modular data, voice, power, and HV/AC systems equals unlimited opportunity to adapt commercial space from tenant

to tenant, from one work function to another, from one employee to another. Change is a constant, but its negative effects can be minimized with flexible, modular building systems that are designed for efficient installation, use, and repeated reuse. SpaceworksAI's approach is to offer building owners, property managers, architects, general contractors, and facility managers a range of products that work independently or as a suite to create inherent flexibility in commercial buildings.

Environmental sustainability is inherent in this approach. The ability to build with minimal waste, and then reconfigure and reuse interior components multiple times, is a huge advantage in the current

commercial market. In the United States, construction and demolition debris (the waste produced in the course of constructing, renovating, and demolishing buildings) accounts for between 10 and 30% of the total municipal waste stream. Once building materials have been sent to a landfill, the resources they contain are virtually impossible to recover. Strong public concern for the environment and belief in waste minimization and recycling gives the building owner or facility manager who employs a proactive plan to reduce waste a positive image with potential tenants.

Consider gypsum drywall, one of the most basic building materials. The U.S. produces approximately 15 million tons of new drywall per

year. Approximately 12% of new construction drywall is wasted during installation, which equals 1.8 million tons of new drywall scrap per year. The majority of our nation's drywall waste is generated from new construction (64%), followed by demolition (14%), manufacturing (12%), and renovation (10%). There are significant problems with disposal of gypsum drywall, as hydrogen sulfide gas may be produced when gypsum is landfilled, especially in a wet climate. Several communities in Canada do not accept drywall at landfills for this reason. Incineration of gypsum, another disposal method, may produce toxic sulfur dioxide gas. Environmentally-friendly options for drywall disposal, such as recycling into new drywall or

recycling into soil additives or fertilizers, are being explored, but they are not yet widely available, nor will they counteract the problem completely.

A smart alternative to fixed gypsum board walls is a movable drywall system. Versus conventional fixed drywall construction, demountable drywall systems are 90 to 100% reusable and relocatable. If installed in new construction, the system can be built to exact building specifications, reducing waste initially and on an ongoing basis. Even in an existing building, installing a flexible drywall system within an office means that walls can be quickly and easily reconfigured or relocated as tenants' needs change. Beyond the reduction of waste and disposal costs, the benefits include minimized noise, dust, and debris during initial installation and reconfigurations, quicker installation for faster occupancy, and reduced disruption to an active workplace.

Movable drywall systems offer building owners and facility managers another important cost consideration: Potential tax savings. Since movable wall systems are portable and considered tangible personal property, they can be depreciated over a period of just seven years. Fixed drywall partitions are considered tangible real property, and take over three decades to depreciate fully. Maximizing the use of tangible personal property in a project has potential tax benefits of 5 to 20% of construction costs. Demountable wall systems deliver these financial benefits even if the walls are never moved. For specifics on how to apply these potential tax advantages to your own projects, contact your accountant or tax advisor.

The argument for movable drywall systems is clear: Plan for the future by not creating waste in the first place. Flexibility in building systems reduces waste of not only natural resources, but also of time and money.

In addition to movable drywall systems, SpaceworksAI offers a carefully researched suite of flexible building solutions, including structured zone cabling for voice, data, and power, a low-profile technology-flooring platform, modular floor coverings, sound masking systems, and demountable glass office fronts. SpaceworksAI is ready to meet the needs of building owners, architects, designers, property managers, and facility managers who are seeking new solutions for flexible corporate interiors.

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