

# Building Conversions Open Doors for Self-Storage

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With all the permitting delays and costs associated with new self-storage construction, many owners and developers are looking toward conversion as an alternative. Vacant, partially vacant or functionally obsolete properties exist in all markets. Some will lend themselves to self-storage, others will not. Like new construction, conversions often have their own set of challenges, but they offer advantages, too:

- Many are in fully developed areas, practically eliminating new local competition.
- Core retail demographics or traffic counts may still exist in the area even though the “A” retailers have moved to newer locations.
- The inclusion of self-storage may make a formally unfeasible single-use project work.

## Do the Numbers Work?

To determine if a site is appropriate for a self-storage conversion, there are many facets to consider. First, does the site have enough square footage to make the numbers work? Can the building’s rentable area be expanded via a mezzanine system or additional floor? Some locations may not have enough square footage to make the project feasible; but in other cases, buildings will have an interior height of 18-plus feet, allowing for the installation of a mezzanine.

Unlike point-load, rigid multi-story framing systems, a self-storage framing system allows the load to be spread throughout the existing slab on 5- and 10-foot centers. It also allows the support design to follow the unit mix of the floor below. As a result, a mezzanine can be installed on many existing slabs that have a thickness of only 4 inches between footings. A thicker slab allows for even more options, such as a third floor, second-floor concrete deck vs. plywood, etc.

Regardless, upper floors will need to be designed to the standard of 125 PSF (pounds per square foot) dead load. Should you not have adequate height for a full second story, there are other options. For instance, Storage On Terminal in Vancouver, British Columbia, Canada, effectively expanded upward by offering larger than normal locker sizes. A rolling staircase allows access to the upper units, and net-square-footage requirements were met.

## Other Considerations

Assuming you have the necessary height, there are other considerations, including:

- Sprinkler/fire system additions or new installation (fire safety)
- Existing HVAC systems vs. what is needed
- Elevators or lifts
- Emergency stairways
- Parking requirement changes
- Operational layout/logistics

Even if the existing building has a sprinkler system, it will now only address the upper floor. Additional service will likely be required for the lower level. Also, check with the local fire marshal for the adequacy of the existing head spacing and water supply.



*Everett Downtown Storage in Everett, Wash., before conversion (left) and after (right).*

Elevators can be tricky in a conversion. Installing one is a personal decision, but they generally facilitate the ability to rent upper units. While other types of lifts can be used, elevators are the most convenient and user-friendly. The issue lies with construction. Will it be possible to dig an elevator pit and move an elevator through the roof to a penthouse constructed above it? What type of construction should the elevator shaft be? If concrete is to be used, you'll need a method for getting it inside the building.

Some conversions may have radiant-floor heating. If this is the case, it may not be possible to shoot pins into the floor track and door-frame tracks without puncturing the heating lines. An effective solution is to glue down wood, and then shoot the floor tracks into it.

Historic buildings may come with requirements for external aesthetics. Most municipalities issue guidelines for signage and façade coverings. In Long Beach, Wash., for example, one developer was required to use cedar shake or a synthetic material on 80 percent of his façade to blend with the city's environmentally friendly surroundings.

Parking lots can also pose challenges. Everett Downtown Storage in Everett, Wash., had a parking issue. The building had been built exactly to the property line, which did not allow for the required number of parking spaces. Working with the owner and a commercial designer, the contractors were able to satisfy the city's requirements by converting existing loading bays into parking. Although the owner had to reconfigure for a smaller office area, he sacrificed very little rentable space.

On that same project, overhead obstructions required the redesign of several units. Using a chalk line, tape measure and some creativity, it was possible to keep unit sizes close to the original mix without having to sacrifice opening sizes and rentable space. Again, in conversions, designers must work with existing structures, so the more flexible you are, the better the design and function. In this case, using highly skilled outside contractors was key in keeping the net square footage at its maximum.

### **Inside the Conversion**

Finally, let's discuss the pre-construction interior system details. Roll-up doors generally have about a 16-inch clearance requirement for the coil of the door when it's in the up position. That clearance space must be added to whatever the rough opening dimension will be. For example, if the rough opening is to be 8 feet wide by 7 feet, 4 inches tall, then you need at least an 8-foot, 8-inch clearance. Typically, developers use an 8-foot, 8-inch-high hallway system to get the most out of the steel they've purchased.

Another option is to install swing doors, which don't have the 16-inch overhead clearance. This can be a viable alternative if there are obstructions such as sprinkler lines, HVAC vents, trusses or beams. It's a good idea to have approximately 5 feet of hallway width, but check with the local building department for possible width requirements and "dead-end" hall restrictions.

Overall, conversions offer a host of advantages and built-in timesavers. With proper pre-planning and the

assistance of experienced vendors, many "open boxes" can be successfully converted into profitable, attractive facilities.

*Benjamin Riehm is the northwest-territory sales manager for Janus International, a manufacturer of self-storage doors, mezzanines and hallway-partition systems. For more information, visit [www.janusintl.com](http://www.janusintl.com).*

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