

# Concealed Spaces

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WHAT YOU CAN'T SEE CAN hurt you. Concealed spaces represent a unique concern in underwriting, due to their very nature. Helping clients understand the potential hazards of concealed spaces is another sign of the true insurance professional.

What is concealed space? Not everyone knows. Concealed spaces or voids are non-occupied spaces created by building construction. Areas that are occupied or used for storage would not be considered concealed space. A concealed space is not visible, with limited or no access to it. Attics, cocklofts, joist or truss spaces that are part of floor-ceiling assemblies are all examples of concealed spaces. Other areas could be the spaces above suspended ceilings, stud spaces inside framed walls or crawl spaces under buildings. Common areas of concealed space are the vertical chases between floors for pipes, ducts and mechanical systems. These would often be in larger buildings.

Concealed spaces are not restricted to the interior of a building. Exterior areas of concealed space on a building include soffits, eaves and overhangs, as well as decorative frame elements. Think of the quaint downtown shop feel created by the addition of decorative motifs. All of these outside elements cannot have openings or unprotected openings into the building.

Perhaps the greatest hazard of concealed spaces is fire. If a fire were to start, or somehow spread to one of these concealed spaces, there can be extremely serious consequences. The fire can burn for a significant amount of time before detection. Manual fighting of concealed space fires can be difficult because of limited access and inherent venting problems. Such fires are very dangerous to fire fighters. Vertical concealed spaces can also act as flues to spread fire and hot gases. Fire

can spread rapidly through the voids and cause structural collapse before the fire fighters can react to the new danger.

Building construction and the construction of the concealed space are important factors when determining a possible fire loss. Fire resistant buildings and some noncombustible buildings face a lesser threat, as long as the concealed spaces are also of non-combustible construction and contain non-combustible elements. Frame and heavy timber buildings would of course add a significant amount of fuel to a fire.

Buildings protected by an automatic sprinkler system designed and maintained to the NFPA 13 (Installation of Sprinkler Systems) and NFPA 25 (Inspection, Testing & Maintenance of Water-Based Fire Protection Systems) Standards are at a much lower risk for fire damage. NFPA 13 requires all areas of a building be protected by the automatic sprinkler system with the exception of certain areas. NFPA 13 directly addresses concealed space sprinkler requirements, including areas where sprinkler heads may be omitted. These areas may contain piping or wiring for various building systems. As of 2016, NFPA 13 includes 18 types of concealed spaces that do not require sprinklers. Reasons include lack of adequate space for the required piping, or low hazard due to construction. ([www.nfsa.org](http://www.nfsa.org)) Examples of areas where sprinklers could be omitted include the joist space of less than 6" between studs. Other areas would be joist space greater than 6" separation if it were filled with noncombustible insulation. Concealed space that is constructed of non-combustible or limited combustible material is not required to be protected with auto-



matic sprinklers provided there is minimal combustible loading and no access to the spaces. (NFPA 13)

The best way to reduce the fire hazard in concealed spaces is to use non-combustible materials. ([www.paroc.com](http://www.paroc.com)) Most modern building codes will require fire stopping to be installed to separate areas of concealed space in new buildings. Fire stopping is designed to prevent spread of fire in noncombustible buildings by sealing joints and other openings through which fire could pass. However, older buildings or those that have had remodeling may have had the fire stopping removed. ([www.fireengineering.com](http://www.fireengineering.com)) Renovations will often cover an older ceiling or wall with a new one, actually creating a concealed space as well as making a higher fire load. ([cfbt-us.com](http://cfbt-us.com))

Insurance pricing is also impacted by the presence of concealed spaces. Insurance rating bureaus address concealed spaces in their rating schedule. For example, if there is a combustible concealed space of over 20% of a building's area, a significant charge is added to the rate.

Concealed spaces represent unique challenges to insurers. Helping clients navigate the issues is another value-added service of the professional insurance agent.

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