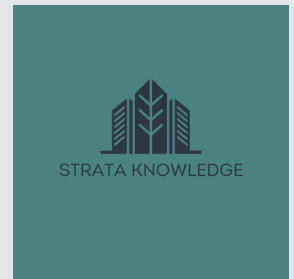


# Passive Fire Protection Systems in Apartments

*What do owners corporations and bodies corporate need to know?*



## Background

Keeping an apartment building legally compliant and in good order requires an understanding of its aspects and features.

Building owners (owners corporations or bodies corporate) are ultimately responsible for a building's repairs and maintenance. However, various managers and contractors assist in executing these responsibilities.

One aspect of a building's infrastructure that needs to be better understood is **passive fire protection**.

Knowledge of passive fire protection systems will help to ensure decisions are made that safeguard the building and its residents.

Passive fire protection systems use construction elements within a building that are purposefully designed to prevent or delay the spread of fire and smoke. These systems are built into the building's design and can include separation of the building into fire compartments and protection of openings within the building.

As part of a larger research project (available at [www.strataknowledge.com](http://www.strataknowledge.com)) that investigated passive fire protection defects, we also wanted to know how building owners maintain passive fire elements, and how they navigate rectification processes when confronted with passive fire protection defects.

## Research Findings

There are legal obligations placed on building owners to maintain essential fire services within their building. This includes passive fire protection systems.

There is substantial variation across the states and territories in terms of inspections and reporting requirements. Some states require annual inspections and reporting of all essential fire services by an accredited practitioner. Others simply place the onus on the building owner to ensure that the services perform to the stated standards.

Overall, the research found that education and training by those engaged to inspect essential fire services was lacking particularly in relation to passive fire protection systems. Concerns were raised that essential fire services inspectors often focused on active fire systems (e.g. sprinklers, fire extinguishers) with little regard for passive fire defects or damage.

Currently, Queensland is the only state that requires passive fire protection systems to be inspected and maintained by a practitioner holding a passive fire protection licence.

Another research finding related to the reluctance by building owners to rectify passive fire protection defects when they become known. Often design and construction related defects become evident by accident (when another building element is being inspected) or when other rectification work is being undertaken (removal of combustible cladding). If the costs of rectification are significant, building owners tend to delay or ignore advice to rectify unless a authority is aware of the problem and initiates a notice. It appears that owners may make decisions to delay or ignore these particular defects based on fire risk probability (assumption that a fire in the building is unlikely).

## Lessons and Implications

It is vital that everyone who is responsible for ensuring compliance in an apartment building knows the passive fire protection elements and systems within a building.

There should be records of these elements (including a fire penetrations register) and systems that are readily available to any contractor inspecting, maintaining or working on any element of the building.

Managers assisting building owners in engaging contractors to inspect essential fire services should ensure that the contractor has the requisite licence (in Queensland) or education and experience to competently inspect the passive fire elements and systems. In New South Wales, Queensland and Victoria, there are specialists in passive fire that could assist.

Building owners should also be mindful of works being undertaken (by residents or contractors) that may damage or impact the integrity of a passive fire protection element or system. This is particularly important in relation to fire-rated walls and fire-rated doors. Once a fire-rated wall is penetrated and not appropriately sealed, it is non-compliant and poses a safety risk.

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