

PLANNING & DEVELOPMENT SERVICES ADVISORY



Rated Double Doors in Fire Separations

Question

In general, what are some of the NBC requirements for doors located in *fire separations*?

Answer

Based on Article 3.1.8.1, *fire separations* are required to be continuous, have a *fire-resistance rating* as specified by Code, and any openings shall be protected to ensure the *fire separation* acts as a barrier to the passage of smoke and fire.

When doors are used as *closures* in *fire separations*, the following Code requirements that are being discussed in this advisory include:

- **Article 3.1.8.4:** describes that doors are to be tested to CAN/ULC-S104 and provides the minimum *fire-protection rating* (FPR) required for the closure based on the *fire-resistance rating* (FRR) of the *fire separation* (see also Article 3.1.8.12 for locations where doors with a *fire-protection rating* of 20 minutes are permitted).
- **Article 3.1.8.13:** describes how doors located in *fire separations* are required to have self-closing devices to close the door after each use (exceptions are provided in the Article).
- **Article 3.1.8.15:** describes how swinging doors in *fire separations* are to have latching mechanisms that will hold the door closed after each use.

Question

How does the City of Regina apply these requirements to double doors in *fire separations*?

Answer

Both the Building Standards Branch and Fire & Protective Services interpret that the Code requirements described above apply to each leaf in a double door. This is based on the fact that *fire separations* must be a continuous barrier to the passage of fire and smoke, and that doors in those *fire separations* must self-close and latch after each use in order to maintain that continuous barrier (except where specifically exempted in the Articles). If the doors do not close and latch, pressures created during a fire will push those doors open and the *fire separation* will be compromised.

Therefore, double doors that have an inactive leaf where hardware must be manually engaged to lock the leaf in place are not permitted in a *fire separation*, as this manual engagement does not meet the requirement for latching from Article 3.1.8.15. In order to be acceptable, each leaf must be able to self-close and self-latch in order to maintain the continuity of the *fire separation*.

Question

How does this interpretation apply to a double door with a removable mullion located in a *fire separation*?

Answer

When a double door has a removable mullion between the each leaf to which the doors latch, the mullion must remain in place to ensure that when each leaf self-closes that it will be able to latch in the closed position after each use.

If a mullion must be temporarily removed in order to facilitate the movement of materials, etc., it must be re-installed as soon as the movement of materials is complete to ensure the door is in proper working order. If a mullion will be removed often, the owner and designer should consider other door options, such as those utilizing vertical rod exit devices.

Question

What does this mean for designers and building owners?

Answer

Plans should clearly show double doors in *fire separations* with each leaf having self-closing and latching capabilities required by Code (except where Code exempts these requirements). If this is not clearly shown, it may be noted as a deficiency, which can slow down the permit process. The designer may need to incorporate door coordinators as well, if one leaf must close before the other in order to function correctly.

If double doors are installed in the field that do not meet the Code requirements, the Building Inspector or Fire Inspector will note it as a deficiency and require it to be fixed or replaced with a door that maintains the proper continuity of the *fire separation*.

For more information on Building Permits, Building Safety or Zoning Information, please visit Regina.ca or contact [Service Regina](#).