

APPLICABILITY

This regulation is applicable to all building types except villas. Refer to Table 101.07(1) in Section One - Administration for detailed applicability levels.

IMPLEMENTATION

This regulation ensures that zones within a building that have different heating or cooling requirements could be controlled specifically to meet those requirements and only be used when required. Efficient controls for HVAC systems shall be in accordance with latest edition of ASHRAE standard 90.1 or equivalent.

The following steps must be followed in order to meet this regulation.

Zoning of HVAC system

A “zone” is a physical space within a building that has its independent temperature controller (thermostat) device to control the HVAC system within that zone. The zone should be defined at the building design stage based on expected occupancy patterns and incidence of heat gains and it could be part of a larger space, an individual office or a small dwelling.

For instance, spaces with windows that face south direction should not be zoned with windows facing east direction unless the spaces are sufficiently open to one another such that air may mix well between them to maintain uniform temperature throughout. For example, as shown in fig. 502.08(1), each perimeter zone is controlled by independent air conditioning system. Heat load would also vary in each orientation, based on the level of exposed surface.

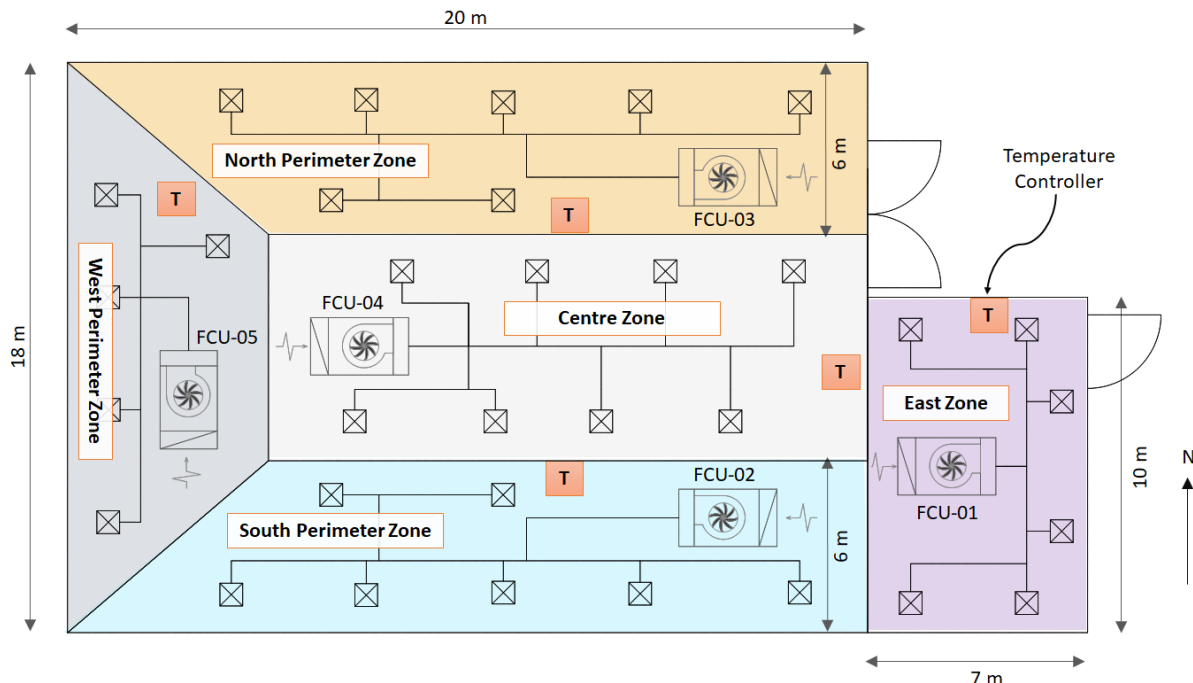


Fig. 502.08(1): Independent Perimeter Zoning for an Office (Sample)