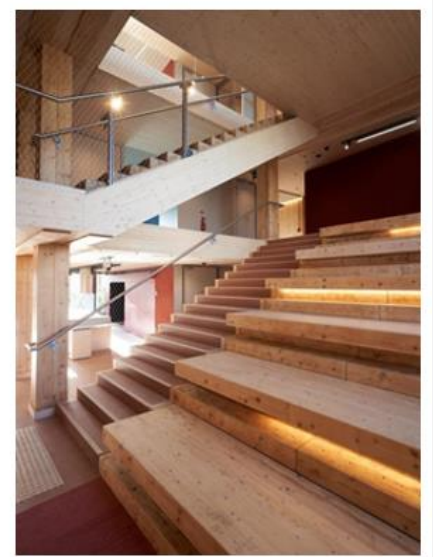


# Workplace Thermal Comfort Guidelines

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## 1 Preamble

Thermal comfort is an issue in a significant proportion of workplaces, including the University, particularly during summer. Many buildings at La Trobe were built in the 1960s and are not fully climate controlled.

Installing air conditioning systems in all areas will have high capital and operational cost impacts. It also has significant environmental costs, with air conditioning typically accounting for a significant proportion of an organisation's greenhouse gas emissions.

This guideline establishes the approach of La Trobe University to the thermal comfort of staff and students, with the aim of optimising the built environment in ways which are energy efficient and cost effective, environmentally sustainable, in line with industry best practices, applicable standards/codes and technically appropriate.

Requirements under this guideline are applicable to new and existing buildings and facilities at all campuses of La Trobe University. Special provisions apply to certain areas which may have a need for strict control of the environment within a space (see section on 2.2.1 SpecialProvisions).

## 2 Guideline

### 2.1 General

La Trobe University recognises that appropriate thermal comfort optimises the health and safety, and overall comfort of staff, students and stakeholders actively using University's facilities.

La Trobe aims to achieve the following thermal comfort standards in existing buildings, new buildings and refurbishments in all non-exempted spaces:

- a. Single set point: 22°C +/- 2°C
- b. Maximum range in a non air-conditioned space 18°-32° C
- c. Ventilation systems to comply with Australian Standard AS 1668.2 2012 and NCC (applicable year of construction)

Installation of mechanical systems will only be considered when passive thermal control and natural ventilation systems fail to achieve the above thermal comfort standards, with a preference given to energy efficient installations such as Mixed Mode systems (refer to section 2.5 for definition).

All heating, air conditioning and ventilation must be controlled by:

- a. a building management system; or
- b. in the case of individual units, an energy saving push-button timing device to ensure that the unit will only operate for a limited time or only if the space is occupied

Failure of passive thermal control or natural ventilation systems does not automatically justify a mechanical air conditioning solution, due to:

- a. the high cost of upgrading air conditioning, heating and ventilation and implications for running costs;
- b. strategic building upgrade priorities and plans in place;
- c. the implications of such equipment for the overall mechanical load in a building which may negatively affect other aspects of building operations; and
- d. inadequacy of existing building management systems leading to a much greater scope and expense of necessary remediation work.

Where there is a pre-existing air conditioner, heating or ventilation device, or portable air conditioners which are not compliant with this guideline, and there is sufficient economic and energy savings to be made and where such action will not compromise the thermal comfort conditions within the space, the Director, Facilities Assets and Services may decide to remove it. Use of portable air conditioner is typically restricted to extreme emergency and medical conditions.

## 2.2 Approvals and Requests

Line managers may request the Director, Facilities Assets and Services to make a formal evaluation of a workplace for thermal comfort.

A Space Occupier's capacity to pay does not confer the right to pursue a mechanical solution. Accordingly, approvals for heating, air conditioning and ventilation are to be through the Director, Facilities Assets and Services.

Requests can be submitted via a Maintenance Request via [Archibus](#) and all requests should detail any non-mechanical options for heating or cooling (refer to 2.1, as appropriate) that have been explored.

### 2.2.1 Special Provisions

The following are examples of the areas that may require air-conditioning owing to the requirements of a specialised function and such cases will be assessed on a case by case basis for priority attention:

- a. Animal House
- b. Research and teaching laboratories
- c. Computer room services
- d. Plant room areas
- e. Museums and Special collections

## 2.3 Assessment

When making an evaluation of thermal comfort, the Director, Facilities Assets and Services or nominee will consult with affected Space Occupiers, as required.

If the Director, Facilities Assets and Services determines an area to be outside the thermal comfort standards, in line with sustainability principles, preference will be given to passive thermal control solutions, such as shading, insulation, natural ventilation, in accordance with Australian Standard AS 1668.2-2012.

## 2.4 Responsibility

### 2.4.1 La Trobe University

As an employer, La Trobe University recognises a legal requirement to provide and maintain, so far as practicable, for the employees a working environment that is safe and without risks to health, in accordance with the Victorian [Occupational Health and Safety Act \(2004\)](#).

### 2.4.2 Line Managers

Managers have a responsibility to ensure that staff members under their management and students are not placed at risk of heat discomfort arising from their work or from the working environment, particularly during the summer months. Accordingly, the responsibility to respond to and resolve thermal comfort issues raised by staff and students rests primarily with the relevant manager.

### 2.4.3 Director, Facilities Assets and Services

The Director, Facilities Assets and Services has overall responsibility for assessing the heating, ventilation and air conditioning needs, plant and equipment at La Trobe University.

Director, Facilities Assets and Services may evaluate:

- a. Whether a La Trobe University workspace occupied by staff under their management or students falls within the scope of this guideline.
- b. Whether treatment of an area is justified under the scope of this guideline; and
- c. Appropriate solutions (passive or mechanical) to meet the thermal comfort of scope occupiers.

The Director, Facilities Assets and Services has responsibility for recommending the order of priority and financial approval of all mechanical heating, ventilation and air conditioning treatments at La Trobe University to the Senior Executive Group or its appropriate sub-committees.

## 2.5 Definitions

Work or Phrase	Meaning
Air conditioning, heating and ventilation	means a mechanical system or item of equipment that treats air in buildings to assure temperature, humidity, particulate concentration and air movement at levels most conducive to personal comfort, manufacturing processes or preservation of items.
Mixed Mode air conditioning:	refers to the complementary use of mechanical cooling or natural ventilation depending on the particular external climatic conditions that results in lower energy use.
Natural ventilation	means the use of windows, ventilators and shafts to supply and remove air using the natural forces of wind and temperature/pressure differentials.
Space Occupier	means an individual person and their associated School, Faculty, Centre, Division or tenant occupying a La Trobe owned asset.
Treatment:	means action taken to achieve a level of thermal comfort consistent with this guideline.