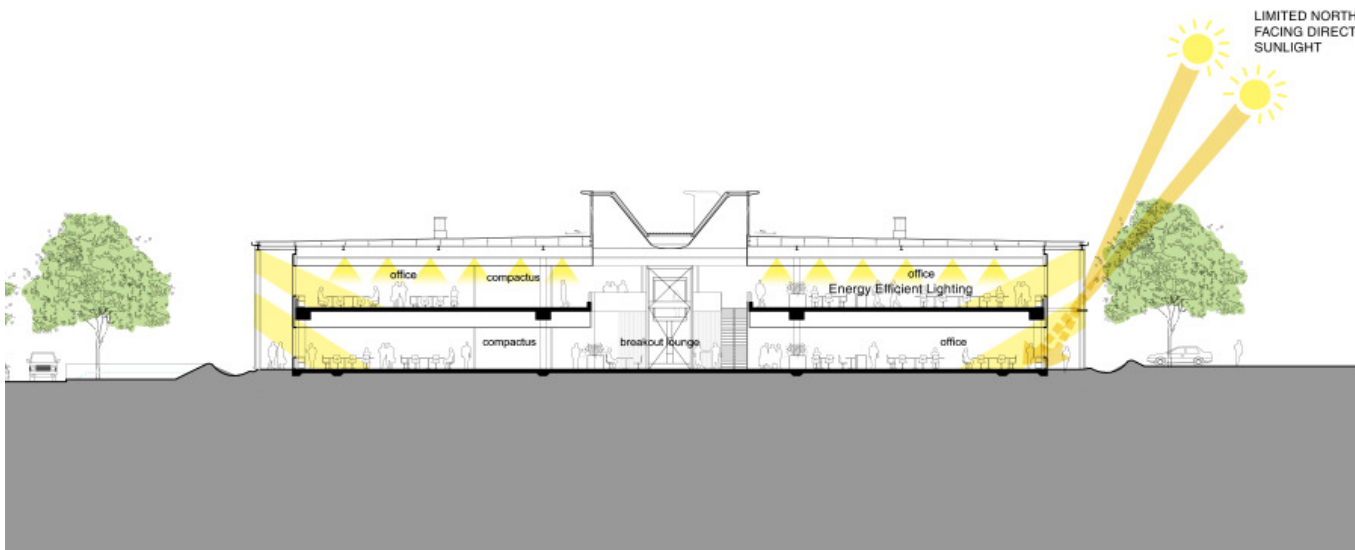


9.0 Environmentally Sustainable Design Initiatives

The proposed new office building has been designed to have minimal environmental impact with low operational and embodied carbon dioxide emissions. It will provide high levels of environmental performance and improved occupant health, productivity, comfort and satisfaction. Being an owner occupied building a reduction in operating costs as a result of green initiatives will provide medium to long term financial paybacks.

Overall flexibility in floor layouts is critical to sustainability and these along with the structure and façade have been developed to allow for maximum flexibility of use.

The office building is being designed to achieve a 5 star ABGR and 5 star Green Star rating and to achieve this aims at leading practice in energy and environmental targets as outlined by the following strategies:

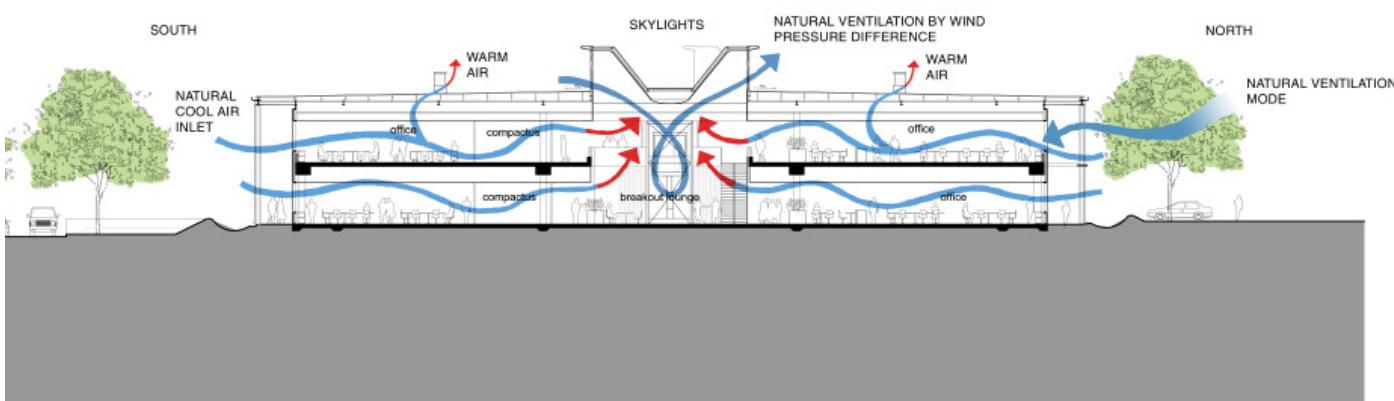


9.1 Energy Efficiency

The building is orientated East - West for the optimum solar control to the main façade.

The facades performance will play a fundamental role in maintaining energy efficiency and high performance building envelope has been designed to block direct sunlight from entering the building while optimising daylight and minimising glare. Double glazed combined with 800mm high spandrel panels provides a well insulated façade. A deep roof overhang is combined with external sun shading in the form of aluminium louvres that are positioned to cut out direct solar radiation to the north, west and east façade of the building.

Energy efficient T5 lamps will be used throughout, possibly in a single batten configuration to minimise numbers. To reduce non essential use of artificial lighting, occupancy sensors and perimeter light switching on a daylight sensor will be incorporated.



9.2 Mixed Mode

The buildings narrow floor plates are well suited to effective natural ventilation which will reduce energy usage and improve indoor air quality. A mixed mode system is proposed that allows the building to operate on a natural ventilation system during off peak temperature periods while using mechanical cooling during the hottest part of the year.

Automated operable windows are located on the external façade allowing fresh air to enter and cool the inside air. Warm air rises via convection to the skylights located over the level 1 office space and double height 'street'. These skylights have been designed as chimneys that allow warm air to be naturally exhausted through the roof.