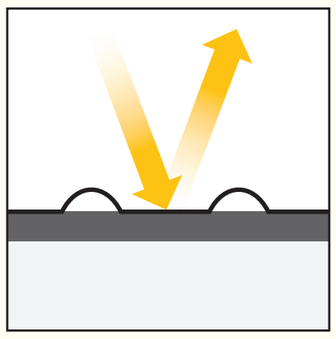
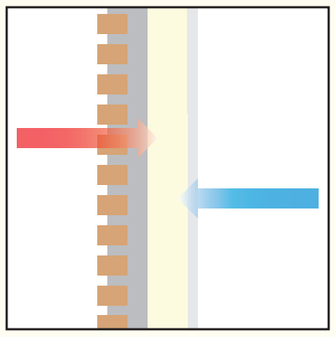
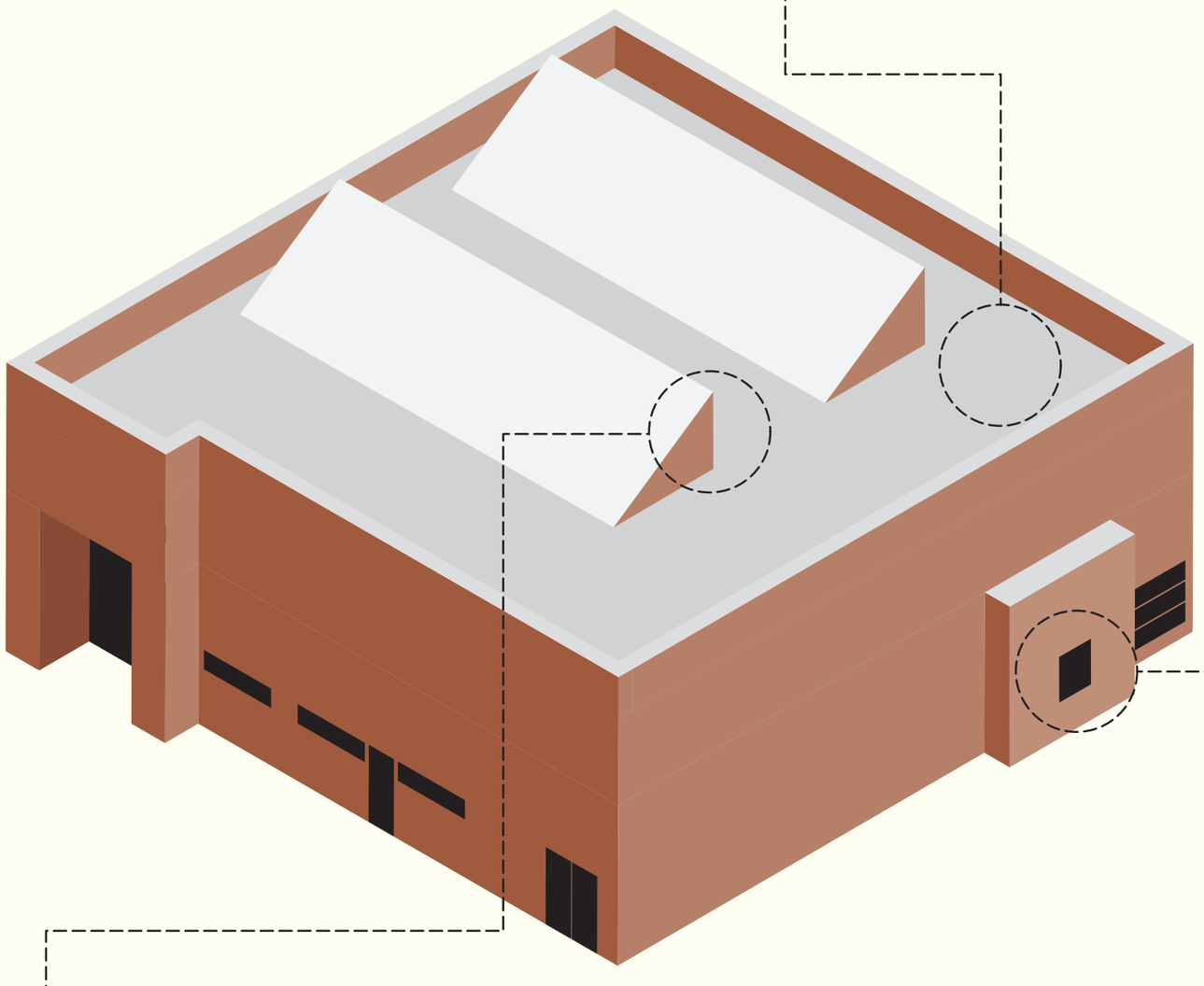
2.4 : the building

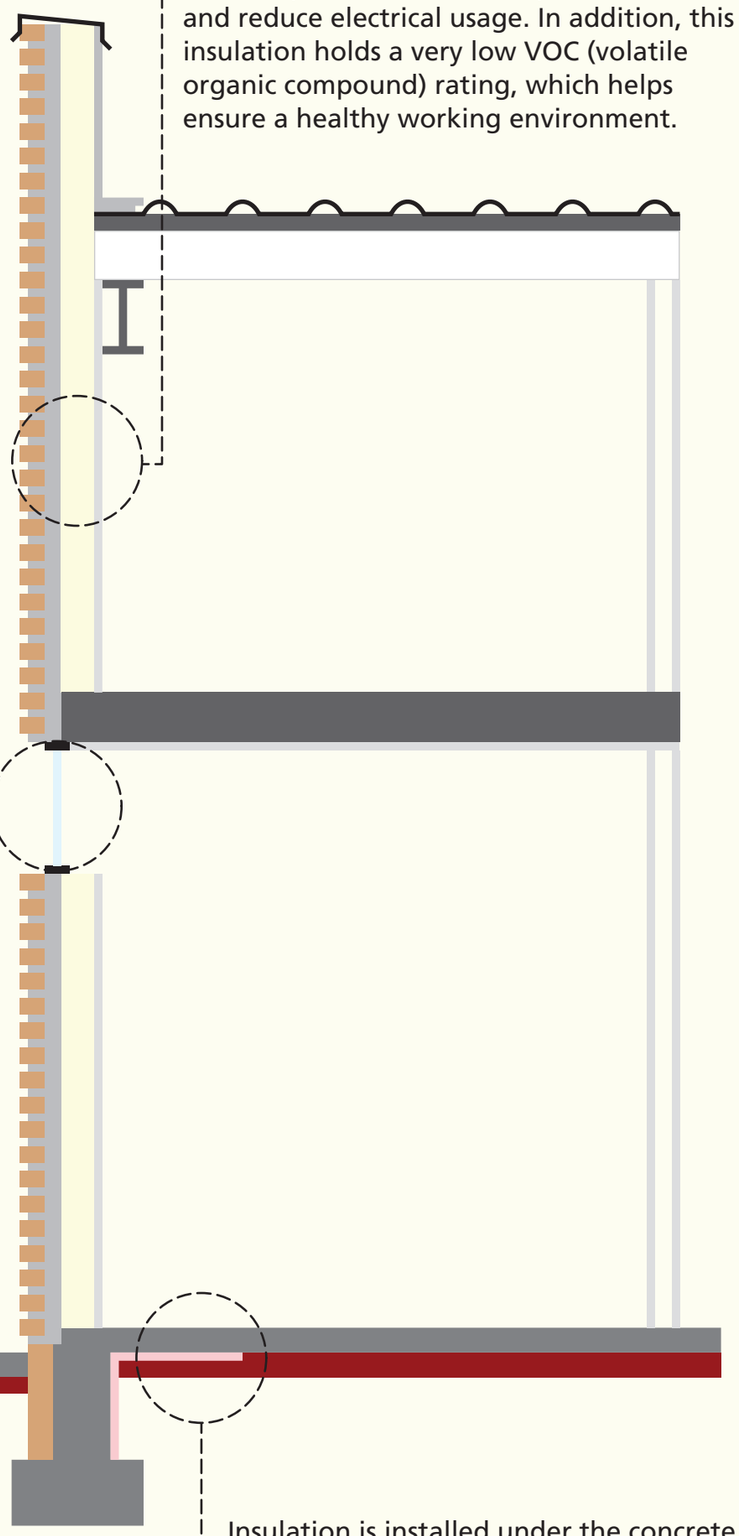


The reduction of heat islands, which are thermal differences between developed and non-developed areas, is important to reduce the impact to microclimates and local habitats. This is accomplished through the use of high-reflective surfaces both on the parking areas and on the roof of the building, and by providing adequate shading to these areas to reduce heat. Also, at least half of the parking spaces will be shaded to reduce heat from automobiles.

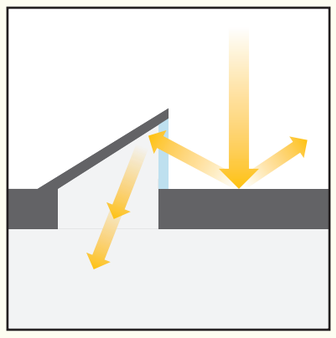


Highly efficient spray-foam insulation is installed in the walls. This, in combination with the reflective coating on the roof, will ensure optimum indoor temperature levels and reduce electrical usage. In addition, this insulation holds a very low VOC (volatile organic compound) rating, which helps ensure a healthy working environment.

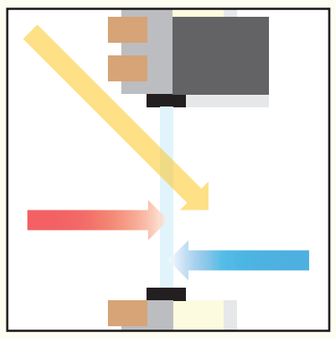
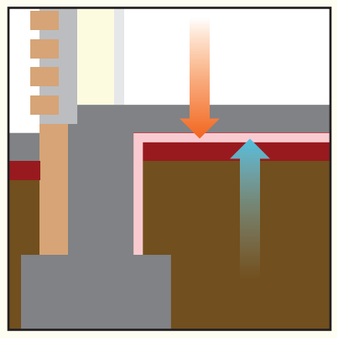




Interior lighting is boosted through the use of clerestory windows on the roof. These windows are used to capture indirect light and send it into the building. With this lighting, electrical lights will remain off during daylight to conserve energy.



All windows used in this structure are some of the most efficient available, which will help to conserve electricity consumption. Also, it has been shown that providing a connection with the outdoors improves the morale of the building occupants. Between 75% and 90% of indoor spaces will have a direct view of the outdoors.



Insulation is installed under the concrete floor to ensure the control of inside temperatures. The rate at which heat and cool can escape and intrude through flooring creates a need for this approach to conserve energy and reduce overall operating costs.