Quality of Life & Wellbeing

Environment & Nature

Flexibility & Adaptability

Viability & Robustness

Efficient Use of Resources

C.7. Shading

The orientation of the urban grid and building massing play a major role in creating spaces with pleasant micro-climate and thermal comfort. By assessing the shadow casts in the area at different times of the day, the optimal location, orientation and massing of buildings can be identified.

Considering the prevailing wind direction and adopting an orientation to optimize the wind capture will support the implementation of a passive cooling system within the master plan. Such systems will support creating pleasant and liveable spaces while reducing the potential water and energy consumption and associated costs.

Considering the provision of other shading features to the building façade design can also improve the quality of open spaces. For instance, façade design that supports the shading of pedestrian paths, by integrating elements such as building overhang, attached canopies, or even colonnades will enhance the viability and utilization of the space.

Figure C.6: Urban grid in line with wind direction

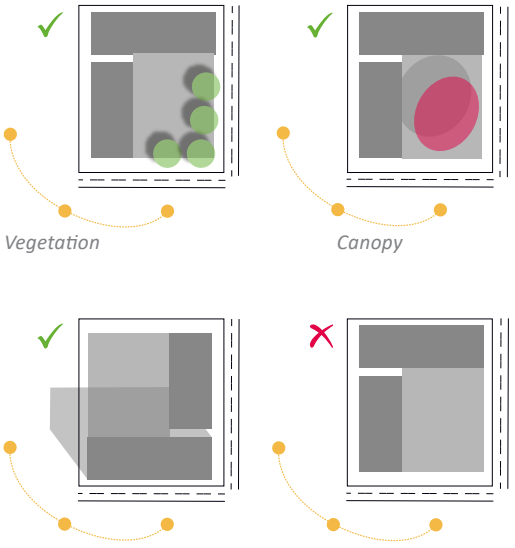


Figure C.8: Placement of buildings and elements to maximize shading

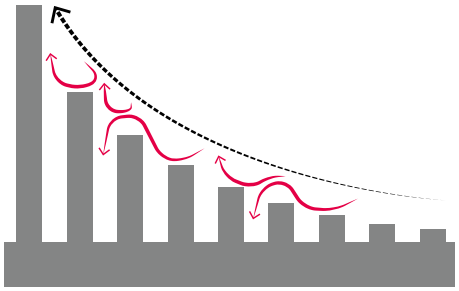
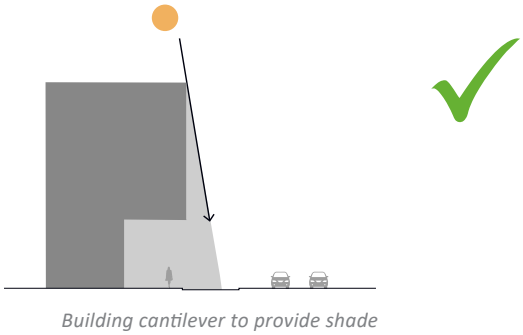
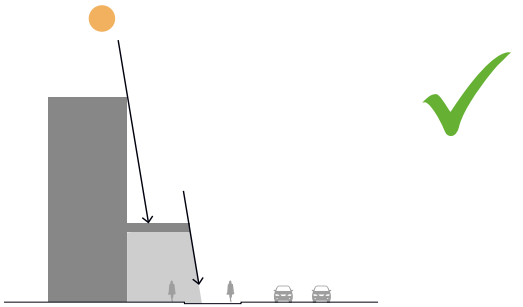


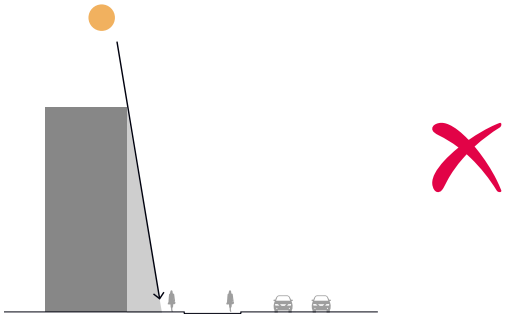
Figure C.7: Massing in line with wind direction



Building cantilever to provide shade



Attached canopy shading



No shading