

**TABLE 1.6 Guidelines for Green Site Planning and Design**

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1. Minimize cooling loads through careful building location and landscaping.
  2. Utilize renewable energy resources to meet site energy demand for lighting.
  3. Install energy-efficient lighting.
  4. Use existing buildings and infrastructure instead of developing in “greenfields.”
  5. Design should create or contribute to a sense of community.
  6. Design to reduce dependence on the automobile.
  7. Reduce *material use* or increase the efficiency of material use.
  8. Protect and preserve local ecosystem. Maintain the environmental function of the site.
  9. Specify low-impact or green materials.
  10. Site and buildings should be designed for longevity and to be recycled.
  11. Design to minimize the use and runoff of water. Treat stormwater as a resource not a problem.
  12. Minimize waste.
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redevelopment. Reuse increases density and eliminates the loss of open space. Materials should be selected on the basis of durability and low environmental impact. Recycled materials are low impact and efficient. Better than recycling materials is reusing entire buildings. Many construction materials have significant environmental impacts either in the manufacturing process or in their final disposition as waste material. Others contain ozone-depleting compounds that continue to volatilize and pollute even after installation.

Reducing the impact of development may be possible by reducing the footprint of a building either by modifying the footprint to the most efficient shape or by building multiple stories. Reducing the surface area of a structure will reduce energy requirements as well.

Sites should be designed to treat storm water as a resource and to use water efficiently. This means not only capturing runoff and encouraging infiltration but also using native plants that are suited to the local climate and precipitation and using Xeriscaping techniques where applicable. Site planning should incorporate the existing environmental function of a site to the extent it is possible. Wetlands and important ecosystem elements such as wildlife habitat, tree masses, and stream corridors should be preserved. The ubiquitous lawn has a notoriously high environmental impact because of its requirements for pesticides, fertilizers, irrigation, and continual mowing. Lawns should be minimized in size and replaced with native species of plants selected for their esthetic quality and drought resistance. Buildings and tree masses can be located to help to minimize cooling costs.

### Green Building Materials

The choice of building materials is as important as the site design or choice of construction methods. Designers have significant influence over the materials used through the specifications they make in design and planning. Many designers