
Project Overview:

The proposed development, EcoFriendly Tower, is a mixed-use structure located in downtown Green City. The building is designed to be a model of sustainable construction and operation, aiming to achieve LEED Gold certification.

Sustainable Sites:

- The site selection was based on its proximity to public transportation, reducing the need for personal vehicle use and promoting a reduction in greenhouse gas emissions.
- A comprehensive stormwater management plan has been implemented to reduce runoff and improve water quality.
- The project includes a green roof and reflective materials to reduce the heat island effect.

Water Efficiency:

- The building will utilize low-flow water fixtures and fittings to reduce water usage by 30% compared to the baseline design.
- Rainwater harvesting systems are incorporated to supplement non-potable water uses.

Energy and Atmosphere:

- An energy model predicts that EcoFriendly Tower will achieve a 25% improvement in energy performance over the ASHRAE 90.1-2010 baseline.
- Renewable energy sources, including solar panels and a small wind turbine, will supply 15% of the building's energy demand.
- All HVAC and lighting systems are designed to optimize energy performance and improve indoor environmental quality.

Materials and Resources:

- Over 20% of the building materials will be sourced from recycled content, and more than 30% will be sourced from regional materials to reduce transportation impacts.
- A construction waste management plan is in place to divert 75% of construction waste from landfills.

Indoor Environmental Quality:

- The design includes strategies to maximize daylighting and provide occupants with views to the outdoors, enhancing occupant comfort and well-being.

- Low-emitting materials have been specified for adhesives, sealants, paints, coatings, flooring, and composite wood to reduce indoor air contaminants.

Innovation in Design:

- The building incorporates an advanced building automation system to monitor and control energy and water usage efficiently.
- A comprehensive education program will be developed to inform occupants about the building's sustainable features and promote environmentally responsible behavior.
