Welcome to the Sugar Creek Administration Center!

LEED

We chose to design this site following guidelines developed by the U.S. Green Building Council called Leadership in Energy and Environmental Design (LEED). We are under consideration for a LEED rating based on these standards.

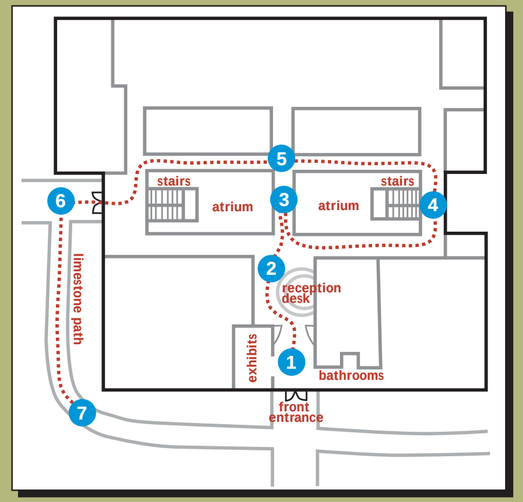
The Forest Preserve's mission is to preserve and protect the natural resources of Will County. In keeping with our mission, we chose to design a building that incorporated green architecture.

What is Green Architecture?

Green is a term used to indicate practices that minimize our impact on the environment and produce healthier living and working places. We invite you to explore our building and site to learn more about green design!

Tour Map

Following the numbers on this map will lead you around the building to each of the different stops.



stop #1

Spiders in the Floor

"Spiders" are actually hubs, sources for electricity, hidden beneath the floor. Arranged in a grid pattern, they allow any workstation within 20 feet to have hookup for computers, phones, and electricity.

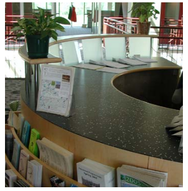
Raise it Up

Take a look at the floor and peer through the glass panels. You are standing on a raised floor that is 18 inches deep. Part of the space below you contains utilities for the communication, heating, electrical, and plumbing needs for the building. This innovative floor system allows for easy access to these resources and tremendous flexibility for a changing floor plan.

A River of Air

The remainder of the space is our air handling system. Air is blown throughout the subfloor space and released through the floor vents. Rectangular vents remain open, while round vents adjust for careful control of air flow depending on individual comfort needs. Rather than heating or cooling a giant space, air is delivered where it needs to be—which saves energy!

stop #2

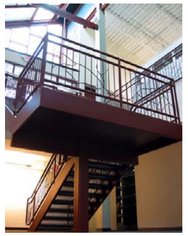


Using recycled products keeps debris out of landfills and reduces the need to create new products that would use natural resources.

New Ways for Waste

When you finish a bottle of laundry detergent, where does it go? Laundry detergent bottles can be recycled and made into a plastic product that is used on the countertop for the reception desk as well as the bathroom partitions. The tile in the bathroom is also recycled and contains 58% post-consumed material.

stop #2 *(continued)*



More steel is recycled in the U.S. than paper, aluminum, glass and plastic combined.

Steel All Around Us

Steel is used extensively throughout the building, from the railings and stairwell to the rafters. Steel is one of the most commonplace and simplest of green technologies. Steel has long been the U.S.'s most recycled material. The use of steel reduces our demand to cut trees, reduces energy demands to make new materials, and conserves landfill space.

Giant Post-It Notes

Did you know that carpet can be made from recycled plastics, such as plastic milk jugs? Our carpet is divided into carpet squares, like giant Post-It notes, which can be lifted up in pieces to gain access to the floor. We can replace worn-out carpet only where it is needed, saving resources and money. Our carpet squares can also be reconditioned and reused as carpet.

stop #3

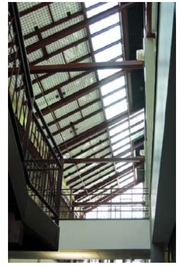
In one year, our solar panels can produce 14,300 – 16,500 kilowatt hours. That's enough energy to operate two average-sized homes for a year!

Power from the Sun

Look up at the ceiling and you'll see the power behind some of our activities. These 46 solar panels capture solar energy and turn it into electrical power. They are angled at 30 degrees, the optimum angle to receive the most sunlight at our latitude in Joliet.

Solar Perks

These panels can provide up to 20% of the building's electrical needs, enough to power our computer and communication systems. Electricity produced from solar panels is clean energy. It does not burn fossil fuels, does not release carbon dioxide to the atmosphere, and does not generate nuclear waste.



stop #4

Glazing reduces solar radiation by an additional 10 – 20%.

Windows that Work

You may have noticed that this building has a lot of windows. Our windows are efficiently insulated to allow natural light in, without excessive heat loss or gain. They are double-paned windows filled with Argon gas to reduce solar radiation by 30%.

Dots and Holes

Some windows are treated with a ceramic paint bonded to the glass, creating patterns of dots or holes. This glazing reflects some of the sun's heat while allowing a clear view to the outside. Windows facing different directions have different patterns, depending on the amount of sunlight received.

This dark concrete heats the air around it, causing the air to rise and exit the building.

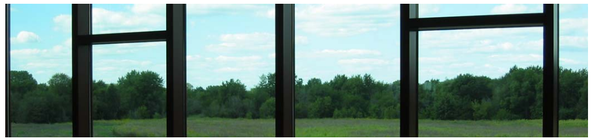
A Breath of Fresh Air

Looking out the windows to the right, you can see a large air intake vault. Air in this building is refreshed with outside air on a two-hour cycle. How does air exit the building? Looking up in the atrium, you can see a large, dark concrete "heat sink." Heated by the sun, it warms the air around it, creating convection currents. The air exits through three chimneys positioned to take advantage of the prevailing winds. Exhaust fans also help push air out of the building. These fans conserve electricity by adjusting their speed in response to the current wind speed.

Put a Bounce in Your Step!

Did you know that old tires can be made into rubber flooring? Look and feel the rubber flooring on the stairs. Rubber flooring is advantageous in high use areas for durability, cleaning, and impact reasons. The manufacture of this product recycles and converts over 45 million pounds of rubber each year.

stop #5



Look closely at the hanging lights. They are on sensors, which save energy by adjusting their output to natural sunlight levels.

A Natural Mood Lift

By design, you can stand almost anywhere in this building and see outward to the surrounding natural landscape. Studies show that natural lighting makes indoor spaces seem larger, improves moods and attitudes, and increases productivity.

A Bright Idea

Most of our artificial lighting is from fluorescent bulbs. Forty percent of the energy used in a fluorescent bulb is converted to light and sixty percent is converted to heat. An incandescent bulb is less energy efficient; only ten percent of the energy is converted to light.

More than Moveable

Most of our interior walls are movable and fully modular. Examine one of these walls and you'll see the individual units. For future renovations, this increases our flexibility and decreases landfill waste, as well as our dependence on new construction materials.

Read your paint label carefully to check for VOC levels.

Wise Choices in the Office

Much of our office furniture contains recycled products, such as steel in the file cabinets and plastic soda bottles in the office chairs.

Indoor Air Pollution?

Studies have shown that indoor pollution levels can be 96 times greater than those found outdoors. Inside air quality is compromised by gases, called volatile organic compounds, or VOCs, coming from freshly painted walls or new carpet and furniture. By selecting products with low VOCs, building planners make it possible for us to breathe easier while we work.

stop #6

Using concrete costs four times less than natural stone and is less labor and resource intensive.

Deceiving Appearance

Take a close look at the exterior wall of the building. At first glance it looks like flagstone or limestone, but it is actually concrete. The concrete was poured into molds with a steel framework, and then stained to give it a faux stone finish.

Staying Local

The bricks in the retaining wall along the sidewalk are manufactured in Aurora, IL. Green design embraces local resources; they save energy and reduce pollution created by trucks hauling materials from further away.

Waste Watchers

As rainwater drains from the building and parking lots, it picks up oil, chemicals, and pollutants. Here, water is conserved and cleansed through a detention system that respects natural water circulation patterns and utilizes the landscape to filter and absorb runoff.

stop #7

Nodding Wild Onion

Water spreaders let rainwater reach plants near the building.

Going Native

The landscaped plants are native to the area and have adapted to the climate. They don't require herbicides, pesticides, fertilizers, or sprinklers to survive and thrive.

Limestone Trail

The crushed limestone on this trail is non-bleached. This green product avoids the negative effects of using chlorine as a bleaching agent—the discharge of environmentally damaging substances.

No Gutters?

Designed without gutters, this building allows precipitation to be used by plants rather than channeled away. Waterspreaders on the front of the building spread rainwater out over a five foot area.

Sugar Creek Administration Center

Hours: 8:00 am - 4:00 pm, Monday through Friday

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Forest Preserve District Will County

Four Key Areas of Green Design

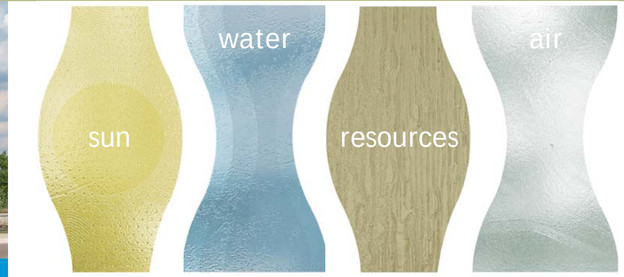
In architecture, there are many ways a building may be green. The icons below identify four areas of green design incorporated into our building.

Sun power creates energy, heat, and light, and affects mood and productivity.

Water is conserved and cleaned through stormwater management.

Resources are preserved through recycled products and a flexible design.

Air flow and quality affect the health of employees and the environment.



Sugar Creek Administration Center

Self-Guided Tour

Forest Preserve District Will County