

# Construction, Landscaping & Preservation



***Costco operates more than 875 warehouses around the world, with more added each year. Our design and construction approach encompasses energy efficiency, smart use of materials and more to help meet our sustainability goals.***



## Sustainable Principles & Design

Our warehouse designs are generally consistent with the requirements of Leadership in Energy and Environmental Design (LEED), an internationally accepted benchmark for green building design and construction. While some jurisdictions require masonry buildings, we prefer to build full metal buildings, as they offer numerous advantages. Our new buildings:

- Can use less materials overall, such as in columns and roof joists, thanks to engineering and design improvements.
- Use recycled materials where possible, reducing the need for new materials.
- Are built to be energy-smart, through metal roofs and reflective materials that block the sun, LED lighting, energy-efficient refrigeration systems and smart energy-management systems.

As we plan new buildings, we are mindful of wetlands and habitats and preserve natural wonders in designing our landscaping. We aim to provide larger, shade-producing trees, drought-tolerant plant species, native and ornamental vegetation and rocks in lieu of manicured lawns in the landscapes surrounding our buildings.

These approaches are critical as we expand our network of Costco warehouses around the world.

## Recycled Materials

In building our new warehouses, we choose materials with as much recycled content as possible to reduce the use of virgin resources. Examples include:

- New U.S., Canada, Mexico locations and some locations in Spain, Taiwan and Australia use prefabricated structural steel systems that are made with recycled content and can eventually be recycled again.
- Metal building insulation uses ECOSE® Technology, which contains an average of 61% recycled content.

We use recycled asphalt in new parking lots, with recycled concrete base material, if available.

When possible we take other steps to reduce the use of resources and to save money. These include:

- Roofs built with materials to achieve a high reflectance rating, lessening the heat gain on the roof.
- The erection efficiency of the structural system (columns, beams, trusses and bracing) and envelope (metal roof and siding) to reduce the overall construction duration, saving time and money.
- High-efficiency restroom fixtures which save 32% more water than standard fixtures.
- Capturing mechanical heat from refrigeration systems to preheat hot water tanks.

## Other Sustainable Features



## Material Reuse in Zaragoza, Spain

*When Costco began development in Zaragoza, Spain, the contract with the landowner required the demolition of existing buildings. Once the buildings were destroyed, Costco repurposed the crushed concrete to prepare the building foundation, saving costs that would have otherwise been spent on importing materials. Additionally, Costco was able to leverage an existing rock wall to create a required concrete retaining wall solution, resulting in additional cost savings. By reusing pre-existing resources, Costco not only reduced costs but also minimized environmental impacts.*

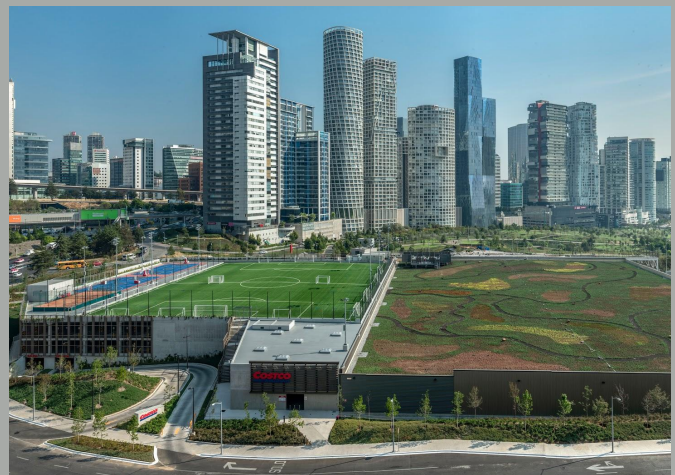


In **Villebon, France** (above), we incorporated additional sustainability features that include:

- Increased landscaping areas.
- Two “green” walls.
- Recovery of rainwater for watering and water retention system.
- Natural lighting to minimize energy consumption linked to artificial lighting.
- Water and energy meters for each type of use to monitor and optimize consumption together with sanitary fittings to reduce water consumption.
- Ten electric charging stations available for members to charge their vehicles.

## Creative Approach: Santa Fe, Mexico City

*Santa Fe, Mexico City Costco worked with local entities to integrate a new warehouse within a park called Parque La Mexicana. This project started with clearing land that had historically been used as a municipal waste landfill. The new warehouse has a landscaped “green” roof, featuring a variety of drought-tolerant and low-water-use succulents, pre-built hives for pollinators, and an elaborate watering system using recycled water for landscape irrigation and toilets. On top of the adjacent parking garage is a soccer field, skate park and basketball and sports courts. A local park association will operate the sports facilities.*



## Natural Preservation

Preservation of natural wonders or indigenous lands is important to Costco; our landscaping designs try to take this into account. For example, the Merida, Mexico location has a cenote (a natural sinkhole filled with groundwater) onsite that was restored and rehabilitated. It is named Kakutzal, a Mayan word meaning “back to life” or “rebirth.” Onlookers can view the natural feature from above on an interpretive plaza.

In another example, our SW Calgary, Alberta, warehouse is located on the lands of the Tsuu T’Ina First Nations People. Only native plant and tree species were used in landscaping to reflect the heritage of the plains.



## Adaptive Reuse & Historic Preservation

*In some cases, we have been able to use an existing building for a new Costco. Besides minimizing the environmental impact, this “adaptive reuse” in some cases supports historic preservations. For example, in Stevenage, England, we adapted a building originally built in 1963 in consultation with Félix Candela, the Spanish Mexican architect. Besides helping to preserve a historically and architecturally important structure, we were able to use less new building material.*



## Creative Landscaping Steps

Costco experiments with vegetation removal using goats, with programs in Oregon, Texas and Washington. These programs can save us money in landscaping costs and eliminate the use of herbicides to kill unwanted and invasive vegetation. We continue to look for opportunities to expand this program where it makes sense. Wherever possible, we use natural and native grasses on large landscape setbacks to eliminate irrigation and mowing.