



SUSTAINABLE SITE FEATURES



Did you know?

The selection and development of a building's site are fundamental components of sustainable building practices. Environmental damage caused by construction can take years of work to remedy.

In addition, the construction and ongoing building operations adds to the demand of natural resources and generates a large amount of waste each year.

Solution:

The new City Hall development has used the "LEED" program to guide both the design and construction process.

This initiative included a variety of strategies with the objective to minimize impact to the surrounding environment and natural resource supplies.

Refer below for specific details.

CITY HALL

GREEN FEATURES



A partial list of the facility's adopted sustainable site strategies is as follows:

- We specifically planned the site with outdoor festivals and community gatherings in mind. A large event lawn has been incorporated to facilitate these celebrations. In addition, some long-range enhancements are planned to accommodate an outdoor gathering area near the lake overlook.
- In order to preserve as much of the site for community enjoyment as possible, we did not oversize the parking lot. Alternately, we are utilizing on-street parking to help meet the anticipated parking needs.
- Several reserved parking has been designated for those that carpool to the City Hall as well as drivers of qualifying "low emitting and fuel-efficient" (LE&FEV) vehicles.
- Our landscape was specifically designed using beautiful Florida-friendly plant selections in conjunction with higher efficiency mister and drip irrigation wherever possible. Extremely heat and drought tolerant plants provide visual interest while reducing the amount of water required to maintain their health. In addition, the installed irrigation system relies exclusively on the City's reclaimed water supply. This strategy alone will conserve countless gallons of critical fresh water each year.
- The Palm Coast Town Center's Civil engineered stormwater management system prevents erosion and detains stormwater in the scenic lake feature following rain storms to ensure the excess water runoff ultimately released from the property meets current water quality standards.



What YOU can do to help!

- Please help us out & participate in our recycling program. Be sure waste makes it into the exterior park receptacles. Litter detracts from our beautiful setting and can also compromise the health of our local wildlife.
- Let the list above guide you in your personal life – At home, seek ways to reduce paper and material use. Consider implementing climate friendly plants in your landscape to conserve water or even a rain garden to make the most of the rainfall on your property.
- Carpool to the site to make the most of the available parking capacity, especially for larger community events.
- To learn about which vehicle models qualify to use the "LE&FEV" parking, refer to the list posted on our website.



RESOURCE CONSERVATION

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A partial list of the facility's adopted natural resource conservation strategies is as follows:

- Responsible recycling ensured over 75% of the total waste resulting from our construction work was effectively diverted from the landfill. This gets our available resources back into the manufacturing stream to be repurposed into other useful products.
- Conscientious construction material sourcing was conducted to use recycled and regionally based materials. Over 30% of the total construction material costs are associated with raw materials that are regionally originating and manufactured and/or comprised from recycled sources. This supports the regional economy and generates real demand for available U.S. resources that would otherwise be abandoned in landfills. It also reduces the energy and fuel required to produce and transport the materials. That's a real win-win!
- Over 50% of the virgin wood based materials installed in the facility originated from sustainably managed Forest Stewardship Council (FSC) certified forests. These FSC certified materials are contained within many of our interior doors, cabinetry and wall paneling.
- Our light fixtures utilize LED lamps (light bulbs) that contain no mercury as well as fluorescent selections with lower than typical mercury levels. This reduces the environmental and health risks associated with both their handling and proper recycling procedures.
- Our ongoing operational initiatives include an occupant recycling program.



What YOU can do to help!

- Please help us out & participate in our recycling program. Make sure wet waste & non-recyclable items are correctly placed in the trash cans as they can inadvertently contaminate some recyclable materials.
- Participate in eco-friendly purchasing programs and conserve our supplies- for example, use a paperless solution whenever possible!
- Let the list above guide you in your personal life – At home, seek ways to reduce paper and material use. Recycle whatever you can using the available resources. Numerous national and regional retailers provide solutions for recycling unique items such as plastic shopping bags, electronics, and compact fluorescent light bulbs.



ENERGY & WATER CONSERVATION

Did you know?

Annual nation-wide building operations consume over 30% of the total energy and 60% of the total electricity used in the U.S. each year. Likewise, nation-wide building operations is the 3rd largest use of our clean water resources each year. Only hydroelectric plants and agricultural irrigation uses are larger.

As our population and new buildings continue to grow, conservation and responsible management of our critical global resources is becoming increasingly important to ensure future generations can enjoy our current quality of life.

Solution:

“Green” building practices help make buildings more efficient and reduce their use of energy, water, and other critical resources. The Comstock Border Patrol Complex has used the “LEED” program to achieve this efficiency & conservation objective.

LEED, or Leadership in Energy & Environmental Design, is a green building certification program that recognizes best-in-class building strategies and practices. To receive LEED certification, building projects satisfy prerequisites and earn points to achieve different levels of certification.

Refer below for specific details.



CITY HALL

GREEN FEATURES



A partial list of the facility’s adopted “green” energy and water conservation strategies is as follows:

- The bright white (High albedo) building roof will help reduce the absorption of solar heat inside and around the building exterior, helping to minimize the “urban heat island” effect outside. This also reduces the undesirable heat accumulation transferred through the roof to the building interior that our A/C units would otherwise have to work even harder to cool.
- Modestly sized windows were incorporated in conjunction with high efficiency glazing to ensure the building “envelop” is better insulated overall. This helps to minimize the impact exterior temperatures have on the interior comfort of the facility and the amount of energy that must be consumed by the mechanical system to maintain the desired indoor temperatures.
- Use of extremely high efficiency LED as well as fluorescent lighting technologies greatly enhanced building efficiency. Overall our interior ambient building lighting conserves 30% more electricity than required by the ASHRAE 90.1-2007 energy standard.
- Likewise, the strategic placement of exterior light fixtures using high efficiency LED technology has made it possible to meet safety and security needs while also conserving 75% more energy than required by the ASHRAE 90.1-2007 energy standard.
- A specialized professional, referred to as a Commissioning authority, worked with the General Contractor to ensure the primary energy consuming mechanical, electrical and hot water systems were actively operating as intended. This additional quality control both helps to ensure equipment is operating at its optimal efficiency and it reduces the number of minor “corrections” needed to resolve issues months into the building’s operations.
- “Low-flow” plumbing fixtures have been installed throughout the building. Overall, they use over 40% less water than standard code compliant fixtures, which will help conserve at least 133,000 gallons of clean drinking water each year!



- Our plumbing fixtures include toilets that use only 1.28 gallons per flush (gpf), 0.125gpf urinals, restroom faucets that use only 0.35 gallons per minute of use (gpm) , 1.0gpm shower heads and 1.0gpm kitchen faucets.



What YOU can do to help!

- Although our automatic light sensors will turn off lights in occupied rooms eventually, please help by turning off the lighting as you leave a room. Over the course of a year, the little energy savings really add up!
- Likewise, please turn off desktop and miscellaneous office equipment when not in use. Standby mode helps to save energy, but turning off your computer or desktop devices is even better when they won’t be in use for several hours.
- Let the list above guide you in your personal life – At home, turn off the light in that empty room and install a low-flow shower head and faucet aerators. Adjust the thermostat and even turn off the water heater element when your home will be unoccupied for hours. You’ll be surprised at how this can help reduce your utility bills!



INDOOR AIR QUALITY



Did you know?

Americans typically spend 90% of their time indoors, so the quality of the indoor environment has a significant influence on our well-being, productivity, and quality of life. The U.S. EPA reports that pollutant levels of indoor environments may be at least 2-5 times- and occasionally more than 100 times- higher than outdoor levels.

Over the past 20 years, research and lessons learned have made higher indoor air quality and a better overall work environment more attainable than ever through key design and construction practices.

Solution:

The City utilized the "LEED" program to guide both the design and construction process for the new City Hall development.

This initiative included a variety of strategies with the intent of both safeguarding short and long-term occupant health as well as providing a quality interior environment that supports occupant functional needs.

Refer below for specific details.

CITY HALL

GREEN FEATURES



A partial list of the facility's adopted indoor air quality strategies is as follows:

- Smoking is prohibited within 25 feet of the building entrances to prevent potential for smoke intrusion. When smoke gets into a sealed commercial building like ours, it introduces unhealthy chemicals that get trapped and recirculated in the air conditioning system. So, please pitch in for everyone's benefit!
- The building mechanical (air handling) system meets strict industry air quality standards. As part of this, it ensures the recommended amount of fresh outdoor air is constantly being introduced to the circulated air supply and actively monitored by the computer control system. Likewise, in spaces with known odor sources or stored chemical products, a portion of the air is being constantly exhausted and removed from the building.
- Safer "Low-VOC" products, which have lower airborne chemical release characteristics, were installed inside the building. This included the most critical products, such as adhesives, sealants, paints, flooring products and even the engineered wood used to fabricate doors and built-in cabinetry. Minimizing the introduction of volatile organic compounds helped to reduce the "new building smell" as well as initial and long term adverse health impacts for the building occupants.
- Construction best practices were enforced throughout the building interior work, which included the protection of mechanical equipment, ductwork and absorbent finishes from dust accumulation as well as exposure to or contamination from other pollutants. This helped to safeguard indoor air quality of the completed building.
- Entry mats have been installed to help minimize the amount of dirt tracked into the building during operations, reducing both the cleaning demands and long-term impact on the interior floor finishes.

- Professional air quality testing was conducted following construction, which verified that the completed building met industry standards for safeguarding health. It evaluated the primary IAQ contaminants of concern for new buildings, including levels of dust, chemical "VOC's", formaldehyde and carbon monoxide.



What YOU can do to help!

- Please don't smoke right outside our entrance doors or near mechanical yards and air intake wall openings.
- Report any notable indoor air quality concern to management so the issue can be addressed as warranted.
- Check with management before using a non-typical chemical product for any special IAQ precautions.
- Let the list above guide you in your personal life – At home, consider natural alternatives for cleaning and pest control products. Also seek "low VOC" options when purchasing chemical based products like paint, floor adhesives, and even floor polish. Be aware that most product odors are associated with airborne chemicals!



OCCUPANT WELLBEING

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A partial list of the facility's adopted general occupant well-being strategies is as follows:

- The interior lighting systems were designed for flexibility. Adjustable light levels will facilitate greater functionality of congregation spaces - higher light levels warranted for reading can be easily dimmed for AV projector use. In addition, staff have been provided desk lamps so they have access to higher light levels to accommodate their individual work needs.
- The building mechanical (air handling) system meets industry developed human comfort guidelines. As part of this, the system has been designed to maintain comfortable temperature and humidity levels throughout the varying spaces in the building.
- Daily physical activity is a good thing! We've enhanced the centrally located building stairwell, making it both convenient and pleasant to use. We encourage both staff and visitors to use this elevator alternative.
- We've installed bike racks on site to accommodate both recreational and alternative commuter use.
- We're striving to make Palm Coast a spectacular place to live, play and work. As part of this, we're making fitness equipment available to City staff to give them greater opportunity to make fitness a priority in their busy schedules.
- Our facilities staff have received training and orientation on the best methods to maintain and adjust the various engineered systems in the new building.
- The sustainable and industry best practices employed in our very own City Hall will serve us in future efforts and initiatives. We are sharing the lessons learned with our community. Refer to our website for more information.



What YOU can do to help!

- Fatigue is often associated with eye strain. It is recommended that staff follow the "20-20-20 rule" when working at the computer. Every 20 minutes, break eye contact from the computer screen to gaze at something at least 20 feet away for at 20 seconds or more.
- The Center for Disease Control (CDC) recommends adults get at least 2-1/2 hours of aerobic and muscle training exercise a week. The good news is this can be accomplished in increments as small as 10 minutes at a time. So, take the stairs or enjoy a walk around our Central Park lake!