

Clearwater Police Department Substation 3

Sustainable Features

March 2021

The Clearwater Police Department Substation 3 replacement will incorporate several sustainable design features including:

- Sourcing local materials when possible.
- Utilizing materials with recycled content.
- Use of low-emitting materials.
- CM must submit the following Action Plans: Erosion and Sedimentation Control Narrative, Waste Management Plan, List of Proposed Materials with Recycled Content, List of Proposed Regional Materials, Blower Door Testing, Construction Indoor Air Quality Management Plan, Lists of certain products to show that they are free of materials that are harmful to the environment.
- All exterior windows and storefront will have insulated, tinted Low-E Glazing.
- Walk Off Mats will be provided at building entries.
- The building will have an Energy Star Roofing System with initial SRI not less than 104, solar reflectance of not less than 0.83 and emissivity of not less than 0.90.
- There is an area designated for collection of recyclables.
- Chilled water and heating hot water systems shall use variable speed pumps to minimize energy usage.
- New high efficiency air cooled chillers shall be used.
- New high efficiency air handler fan motors and pump motors shall be used.
- New high efficiency condensing style heating boilers shall be used.
- Air handler system shall use variable air volume system with VAV boxes to minimize fan energy.
- Outside air ventilation rates shall be capable of being reset based upon occupancy.
- High efficiency natural gas tankless style water heaters shall be used for domestic water heating.
- Low flow toilets and urinals shall be used.
- High efficiency LED style dimmable lighting shall be used for all lighting systems.
- Interior lighting shall be controlled using automatic lighting controls based upon occupancy sensors.
- 50% of general purpose plug load shall be capable of being automatically shut off during unoccupied hours.
- Use of Florida-Friendly landscaping. Florida-Friendly certification through UF/IFAS extension in progress.
- Native grasses will be planted in swales (bioswales).
- The design team researched the possibility of incorporating bird-friendly glazing into the project but ultimately concluded that it is not warranted for this project based on the following;
 - LEED has a pilot credit for bird-friendliness. This credit asks in part that no more than 15% of the façade has a threat factor greater than 75. The threat factor of the exact glazing we are specifying has not been tested by the American Bird Conservancy, so we will assume the threat factor is great than 75. However, only about 9% of our façade is glazing, so we meet this LEED requirement for the bird safety credit.
 - Highly transparent or highly reflective glazing poses the great risk for bird strikes. The specified glazing has very low exterior visible reflection and the gray tint has low transparency.
 - Bird strikes are more likely when there is a lot of vegetation close to the building. Since the building is mostly surrounded by parking, there is minimal bird habitat directly adjacent to the building.
 - In addition to the low overall percentage of glazing, the glazing we have is mostly relatively small punched openings with divided framing profiles expressed to the exterior providing additional visual distraction for birds. Large areas of curtainwall are generally of greater concern, and we don't have that with this project.
 - The building is only one story and the exterior windows are under 10' AFF.
 - In addition to large curtainwalls, other areas that are typically of concern for bird strikes are glass corners and areas with glazing on both sides of the building, where you can see from the outside

through to the exterior on the other side of the building. We don't have either of those conditions on this project.

- To add a bird-safe frit pattern to the glazing would be an additional cost of \$6.50/SF of glazing. The project budget cannot accommodate this and it is not recommended based on the above reasons.
- There was a request to incorporate photovoltaic panels into the project. Because of the critical nature of this facility, locating them on the roof of the substation is not recommended as the attachment would require multiple penetrations through the roofing. Each penetration creates a potential source of a future roof leak. Instead, the design team recommends providing parking canopy covers with photovoltaic panels or locating the panels on the roof of the existing firing range.