

Video: Various pictures of finished building and grounds, building with dogwood, building and sidewalk, building and parking lots, close up of building

Audio, male narrator, music in background: The New Kent rest area renovation project started on Oct. 5, 2006. From the very beginning, the reconstruction of this facility was different. Using sustainable, or green, design principles this is one of three VDOT rest areas scheduled to open as an LEED Certified facility.

Video: LEED graphic superimposed over picture of building

Audio: LEED, or Leadership in Energy and Environmental Design, is the U.S. Green Building Council's rating and certification system.

Video: Shot of LEED medallion and building

Audio: The building certification system defines high-performance green buildings which are more environmentally responsible and healthier.

Video: Graphic showing LEED evaluation over shot of building

Audio: LEED evaluates buildings for sustainable sites, water efficiency, energy and atmosphere, materials and resources, and indoor environmental quality.

Video: Shots of foundation, brick being salvaged, salvaged brick, crushed brick landscaping

Audio: Before the renovation could begin, much of the existing building had to be demolished. Site disturbance was held to a minimum, and roughly 1,100 tons of construction debris was diverted from the landfills through recycling or reuse. For example, crushed brick removed from the old building was used as landscaping at the renovated site.

Video: Building and handicapped parking, distribution building and truck lot

Audio: Although the new building is nearly three times as large as the original building, it was put on the site with minimal disturbance. By retaining all of the existing parking, VDOT saved \$1.5 million in paving costs and reduced the amount of construction debris that would have been created.

Video: Pictures of storm water system construction, storm water box

Audio: The existing parking was modified to include the ability to capture parking lot run-off. This was directed to a new, state-of-the-art, storm water management system. More than six million gallons of water can be treated on-site with the bio-retention system. The system removes 100 percent of phosphorous and 90 percent of total suspended solids.

Video: Photos of building roof under construction, recycling pumps

Audio: Conservation of water resources extends to the building systems too. The roof is part of a rain water collection system that harvests more than 200,000 gallons annually that is recycled to flush toilets and clean urinals in the low-flow plumbing system. Rain water harvesting protects the local watershed and reduces the demand from local water supplies.

Video: Photos of geothermal pipes, geothermal controls, photos of building

Audio: Water also plays a major role in providing a very efficient heating and air conditioning system. Thirty eight wells, each 400 feet deep, provide a source of constant temperature water that is combined with high efficiency heat pumps and a direct digital control system. This unit obtained the highest level of efficiency available under the LEED rating system.

Video: Graphic denoting savings

Audio: The efficiency of the unit is expected to save \$300,000 over the next 30 years.

Video: Shot of entryway, chandelier, lower tray ceiling, light fixtures.

Audio: Energy efficiency is evident throughout the building, including the entryway. In the past, where designs used to incorporate cathedral ceilings for a dramatic entry effect, the ceiling has been lowered. The entry uses an attractive tray ceiling with ample lighting. High efficiency fixtures are used to light the facility while using minimal energy.

Video: Photos of workers installing tile, cinder, slate roof, terrazzo.

Audio: Recycling was a key consideration when selecting building products. Twenty percent of the construction products used, including masonry, roofing, shingles and terrazzo flooring, contain a high percentage of recycled materials. The use of materials with recycled content often meets or exceeds the performance of similar non-recycled materials and diverts waste from landfills.

Video: Fascia, building with dogwood. Graphic of principles.

Audio: Sustainable design principles align with VDOT values of safety, environmental excellence, good stewardship of resources, accountability, and results-oriented action.

Video: Shots of building, graphic of Web site.

Audio: The New Kent Safety Rest Area, completed nearly two months ahead of schedule, is a facility the commonwealth and all visitors can feel proud of.