FACT SHEET
Southern Nevada Recycling Center

About the Center
The Southern Nevada Recycling Center will serve more than 535,000 households throughout the area, including the cities of North Las Vegas, Las Vegas and Henderson, as well as Clark County. It is expected to accommodate future growth in the Valley, and increased residential, commercial and industrial recycling demands throughout Southern Nevada.

The Center includes a new 110,000 square foot building built adjacent to an existing 88,000 square foot facility and will employ 160 full-time employees.

Capabilities
The Southern Nevada Recycling Center can process more than 2 million pounds of recyclables a day at the center. That is the equivalent weight of 500 automobiles. The center can process 70 tons of mixed recyclables an hour and 265,000 tons a year.

Finished bales of paper, plastic and metals weigh an average of 1,800 pounds. Bales can be processed and shipped to domestic and international markets as commodities within 24 hours of arrival at the Center.

Advanced Technologies
The Center features a highly automated control system, including touch-screen Human Machine Interface control, Supervisory Control, Data Acquisition monitoring and remote access to continually monitor operations for optimal performance. The new system includes five optical sorters, maximizing the recovery of all seven grades of plastics including PET, HDPE (with the exception of Styrofoam and PVC) and aseptic containers such as juice boxes and milk cartons. Fully automated storage and baling systems eliminate double handling of finished commodities.

Other technologies include:

Metering Bins
Metering bins play a critical role in regulating the volume and flow of material from the tipping floor to the pre-sort deck.

Pre-Sort Deck
Sometimes, non-recyclable materials end up in the recycling stream. At the pre-sort deck, employees manually remove non-recyclable items. Excessively large but recyclable items also will be separated at this step and will be placed in a container for customized processing.

Old Corrugated Container Screen
This screen separates larger cardboard from other recyclables. Cardboard is screened by size and type, from largest to smallest, as materials progress through the system.

News Screens
News Screens separate paper and newsprint from other materials. These screens recover paper materials that are smaller than the cardboard items separated earlier in the process.

Fiber Optical Sorter
The Fiber Optical Sorter system features five optical sorters which use 2D and 3D technologies to make material separation decisions in milliseconds. The first optical sorter identifies and separates any remaining fiber materials or particles.

Magnetic Drum
The Magnetic Drum separates steel cans from aluminum cans or other materials. A finished bale of metals can weigh, on average, 1,400 pounds.

Eddy Current
An Eddy Current produces electromagnetic charges to separate aluminum beverage cans, diverting them into a container for further processing. On any given day, 275,000 aluminum cans are processed. Every 50 days, enough aluminum is processed at the Recycling Complex to build a Boeing 747 jet airliner.

Optical Sorter
This center accepts all seven types of plastics (with the exception of Styrofoam and PVC not accepted). The plastics are separated by type, color, density or other criteria. On a normal day, 575,000 plastic bottle are processed.

Baler
The final step involves compacting separated recyclables into bales for transport and eventual reuse. Bales can range in weight from 1,400 to 1,800 pounds. These bales are shipped to more than 150 mills and manufacturers worldwide, often within 24 hours from when incoming recyclables are emptied onto the tipping floor.

New Technologies

The center features an innovative glass cleaning system that is being introduced for the first time worldwide. The sophisticated system, created by the CP Group, uses advanced technologies and the principles of engineering and physics to increase glass recovery. The system passes materials through a trommel screen, which removes glass fines – or tiny particles – and other small debris. The materials continue through a rotating drum designed to agitate its contents. At one end of the drum, a large vacuum extracts any non-glass items. Meanwhile, denser material – clean glass – exits the drum at the other end, where it flows into a container and awaits additional processing.

Sustainable Building Features

The Center features a large photovoltaic rooftop solar energy system comprised of 1,776 panels (315 watts) to harness the renewable resource. Approximately 933,162 kilowatts of energy per year, which constitutes more than 15 percent of the buildings power consumption. Over the next 30 years the buildings solar energy system will offset greenhouse gas emissions equal to 43,542 barrels of oil used and 38 million miles driven by local motorists.

The architecture of the building was engineered using recycled and repurposed materials and features various sustainable elements throughout. More than 75 percent of the building is made from recycled and remanufactured steel. The natural landscape was preserved and repurposed to make aggregate for the flood channels surrounding the building. Water efficient automatic low-flow fixtures were installed to conserve water, reducing consumption by more than 20 percent. High solar reflectance index roof materials were installed to minimize heat retention in the building.

Learning Center

Visitors can get a first-hand view of the recycling process in the observation deck, in addition to educational videos, visual displays and information on recycling and sustainability in the learning center. The learning center is a first-of-its-kind, interactive resource for the community, as well as for visitors and sustainability-minded tourists from around the world.

Project Partners

- Cambridge Construction
- Martin Harris
- The CP Group
- Ed Vance & Associates
- Bombard
- Las Vegas Paving

Recycling

- Aluminum: Recycling one ton of aluminum cans conserves 26 barrels of oil, or 1,665 gallons of gasoline. 2.3 million pounds of aluminum cans are recycled in this facility each year. That's the equivalent of 275,000 thousand cans processed per day.
- Glass: Recycling one glass container saves enough energy to power a 100-watt light bulb for four hours. Hotel and casino properties along Las Vegas Boulevard divert 28.8 million pounds of glass each year. That's 80 thousand 12-ounce bottles per day.
- Paper: Recycling one ton of paper saves enough energy to power the average American household for six months, or saves 17 trees and 7,000 gallons of water. More than 24 million newspapers, 2 billion books and 350 million magazines are printed on paper in the U.S. each year.
- Plastic: Recycling a ton of plastic bottles saves approximately 74 gallons of gas. And, the energy saved by recycling one plastic bottle will power a computer for 25 minutes. Stacked end to end, the PET bottles processed in this facility would reach from Las Vegas to Seattle – or 1,170 miles each month.
- **(Source- U.S. Environmental Protection Agency)*

About Republic Services

Republic Services, Inc. (NYSE: RSG) is an industry leader in U.S. recycling and non-hazardous solid waste. Through its subsidiaries, Republic's collection companies, recycling centers, transfer stations and landfills focus on providing effective solutions to make proper waste disposal effortless for their commercial, industrial, municipal, residential and oilfield customers. We'll handle it from here.™, the brand's tagline, lets customers know they can count on Republic to provide a superior experience while fostering a sustainable Blue Planet™ for future generations to enjoy a cleaner, safer and healthier world.

For more information, visit the Republic Services website at RepublicServices.com. "Like" Republic on Facebook at www.facebook.com/RepublicServices and follow on Twitter @RepublicService.

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