

Tools & Equipment

College's unique vehicle cuts costs, offers comfort

By Hency Yuen-Eng

A new vehicle at Monroe Community College in Rochester, NY, is turning heads around campus, but you won't find this model in any showroom.

Dubbed the "Trash Master," the modified, two-door Chevy Cavalier is the Facilities team's unique solution for a vehicle equipped not only to collect all sorts of trash and provide the driver with heat and comfort during inclement weather but also promises to deliver significant cost savings in upkeep.



"The car was a farfetched idea, but it's worked very fine," said Ron Fess, supervisor of campus grounds. "So far, so good."

For nearly 15 years, the Facilities team used a 6 x 4 utility vehicle that was retrofitted to collect trash, leaves and other debris around the 300-acre Brighton Campus. The gas-powered vacuum unit, a leaf vac that was refashioned to discard paper, plastic and other objects, was efficient, but the vehicle became too costly to maintain. The unconventional use of the vehicle constantly on asphalt, rather than on grass, frequently wore out the tires and damaged the axles.

With no doors on the vehicle, the driver also was regularly exposed to inclement weather. So earlier this year the Facilities team went to work to solve the problem. Workers spent a month retrofitting the used sedan donated by a local dealership, Hoselton Chevrolet in East Rochester. They



carved a hole in the driver's door large enough for an arm to get through for easy access to the suction hose. They also cut the car's roofline in half; gutted the back of the car—including the trunk, back seats and rear windows—to the car's subfloor, leaving the fenders and rear bumpers intact; and mounted the existing, retrofitted vacuum unit to a custom-made framework on the subfloor.

In addition, an insulated panel between the front seat and the vacuum motor reduces outside noise for the driver.

"There were no blueprints or drawings. It was, 'Oh we'll start here and see where it takes us,'" Paul Pfenninger, auto mechanic at MCC, said about retrofitting the campus-owned vehicle with the help of staff horticulturist Greg Nickason. They helped solidify the design concept after Fess shared his vision with them.

"We didn't compromise the strength of the car. From a mechanical standpoint, it's a lot better than the old equipment. It doesn't require as much service. Parts aren't breaking down as often," Pfenninger said. "The tires on the old equipment are not designed for roadway use. We were changing tires every 6-8 weeks and changing axles three times a year."

An electric start on the 13-horsepower vacuum motor turns on the unit. Connected to the motor, the 7-foot suction hose protrudes over the driver side of the vehicle and features a handle grip within the driver's reach. The handle is kept in place with a sophisticated network of elastic cords, chains, metal bars and steel clasps.

Because the hose is flexible, the driver can easily maneuver it to pick up trash along curbs. The hose is wide and powerful enough to pull in wet leaves, glass bottles, unopened soda cans, plastic milk jugs and empty oil cans. Shredded or crushed debris is forced out through a discharge chute into a 50-cubic-foot covered metal receptacle, manufactured by Facilities workers. The container design makes

it a breeze to empty the collected trash: The driver presses a toggle switch in the vehicle to activate a lift system and walks back to open the receptacle door. A front loader sits behind it to catch the debris and deposit it into a larger garbage bin.

The capacity of the metal receptacle is large enough to hold 4 days worth of trash.

"You can't buy it like that. They don't sell them in boxes. We made all this stuff on our own," Fess said about the container.

Michael Wichtowski, the main operator of the car, hopes the vehicle will last another 100,000 miles. Ten other people, who also spend 2-3 hours a day picking up trash on campus, use campus-owned golf carts to do their job. Garbage pickup accounts for one-third of the crew's daily workload.

"The new vehicle is user-friendly; it makes the route a lot quicker to do. And it has heat for the winter," Wichtowski said with a smile, a stark contrast to how he felt last winter, when he'd come in from his shift with frozen feet and his body covered with grime. "With this vehicle, the dust stays outside." ■

Hency Yuen-Eng covers Facilities news for the College and Community Relations Office at Monroe Community College in Rochester, NY.