



CASE STUDY

Jacobs Engineering



Challenge

Develop a new solid waste collection program and routing system that would take customer-service and end-product to the next level.

The Villages project management team, led by Jacobs Engineering, had a desire to develop a new solid waste collection program and routing system that provides full visibility into their operation, real-time information and analytics reporting, alerts them to maintenance or field issues, and presents tools for resolution. After evaluating the capabilities of multiple vendors, the team selected Rubicon's software platform, which provides smart waste and recycling solutions, to deploy a tool that would revolutionize operations.



22
Sanitation Vehicles



250+
Commercial Locations



53K
Residential Locations

Solution

Rubicon's system operates on a tablet with a simplified view. It is designed to give full visibility into an operation using data and information technology where service is verified as the truck passes each location. This allows the driver to see completion level in map view, provides turn by turn directions if needed, and allows for driver input should he or she encounter any exceptions such as missing bins, blocked bins, etc. along the way. This solution was deployed system-wide in Jacobs' fleet of 22 rear loading garbage trucks responsible for approximately 53,000 pickup locations in The Villages residential community, and in two front-end loading trucks that service over 250 commercial locations.

As a result of the partnership, Jacobs' fleet routing processes have been streamlined and they have seen the following increases in productivity:

- Elimination of paper routes, enabling new drivers and team members to visualize their pickup locations on an in-cab interface, which was especially helpful as staffing levels fluctuated during the pandemic;
- Virtualization of routes, which allowed for the seamless continuation of service by multiple teams;
- Reduction of business risks related to data attrition by having the customer database and routes stored in the cloud;
- Improved balancing of routes, which allowed for a more even distribution of stops and mileage driven throughout each route;
- Elimination of paper pre- and post-trip inspection forms by having these processes built into Rubicon's electronic format;
- Real-time corrective/preventive maintenance reporting functionality to management, allowing any exceptions marked by users to be tracked; and
- Same day collection of tonnage data through user input at the end of each day; enabling end-of-month and end-of-year reporting functions to be backed up to the cloud daily.

Results

By using Rubicon's platform, Jacobs has improved the level of service its solid waste team delivers to its customers; increased satisfaction levels among the residents of The Villages; and ultimately, demonstrated Jacobs' commitment to evolving how it works. All of this has led to Jacobs remaining the undisputed solid waste provider of choice. These improvements include:

- An approximately 40 percent decrease in customer complaints by a reduction in missed pickups;
- Reduced fuel costs, thanks to fewer missed pickups that would typically result in a need to return;
- Creation of time stamped breadcrumb trails showing users' routes throughout the day;
- Improvement of time management by real-time route status updates viewable from the Rubicon dispatcher/manager portal, enabling trucks that have completed their routes to assist trucks that are encountering challenges or delays;
- Exception reporting to the client captured in real-time and on route, along with photos of exceptions, and forwarding to the management/dispatch team to relay issues if necessary; and
- Increased employee ownership through use of the in-cab interface (the tablet), exceptions menu, and real-time communication capability to the home office from the dispatcher.



▼ **40%**
Decrease in
customer
complaints