

## Rubicon: Building America's Smartest City in Kansas City, Missouri

**Project Description:** In 2019, Kansas City, Missouri came to Rubicon® with a bold mission. They wanted to change the game in terms of how the City delivered customer service to its taxpayers, and they wanted that innovation to come from the City's Solid Waste Division.

Kansas City is a hotbed of technology innovation. They were the first city to be selected for the Google Fiber broadband internet service in 2011. The T-Mobile World Headquarters Campus is located nearby. And the City boasts a long track record of smart city innovation, including the KC Streetcar corridor which features free WiFi. It was with this same innovative spirit that the City's Solid Waste Division saw an opportunity to use technology to improve efficiency, transform its customer service operation, and save money.

RUBICONSmartCity™ is a technology suite that helps city governments run more efficient, effective, and sustainable operations. It was installed in Kansas City's fleet of 80 sanitation vehicles that service approximately 160,000 locations to improve the residential waste collection services for the City's more than 486,000 residents, with a focus on co-innovation and data collection.

**City Challenge:** Prior to partnering with Rubicon, citizen satisfaction with trash collection in the City was not where the Director of Public Works, Michael Shaw, wanted it to be. Shaw's goal was to deliver better service for Kansas Citians, and, in time, cement Kansas City as the U.S. leader in data-driven government services that produce real savings for the City. At this time, the City's Solid Waste Division serviced only a portion of the City for regular trash collection. Shaw knew that, with his Department's high-performing staff, bolstered by Rubicon's technology, the City could expand its collection operation to cover the whole city. The City's Solid Waste Division did not have a single view for all solid waste issues logged at the curb, nor could they easily schedule new services, optimize routes, dispatch trucks, or communicate directly with customers in real-time. They had all the desires to become a proactive branch of city government, but they did not have resources at their disposal in order to make this a reality.

**Impact:** Rubicon's software now powers waste collection for every one of Kansas City's residents. Since inception, drivers have documented more than 17,000 issues at the curb. More than 60,000 bulky jobs have flowed through Rubicon's system. And the City adds to these totals every day.

In the words of Director Shaw, "Since we joined with Rubicon, we have seen citizen satisfaction increase in solid waste collection by 17 percent. It's really helping us to be far more on time and on task and to be far more efficient. We've seen over two million dollars cost savings in delivering those services in just trash collection alone. The quality of service has been significantly improved. It's not about what we say, it's what the citizens say. When we have such a large increase in citizen satisfaction in a short period of time... it's certainly going in the right direction. Because of the success of Rubicon in our fleet, we are now expanding the deployment to our Street Maintenance Division. We're using Rubicon's camera technology in a pilot program to track potholes and street condition as a way to continually improve our service."



RUBICONSmartCity™ dashboard



RUBICONSmartCity™ mobile app

**How-To:** Rubicon equipped every driver in Kansas City's Solid Waste Division with an iPad running RUBICONSmartCity's proprietary software. This device serves as a digital route sheet for drivers, showing them all of their stops, where to go, and which stops to pick up in what order. It also empowers drivers to document issues at the curb, like trash that's not set out or is blocked from pickup by a car or other object. All of this information flows back to a manager portal so the City's staff can make changes and adapt to conditions on the ground in real-time.

**General Tips:** Integration was also a key component of Kansas City's vision. Director Shaw wanted all of the information in his department to flow seamlessly between its various parts, reducing manual staff time and speeding up the resolution of customer queries.

For example, customers schedule bulky item collections using an application on the city website. That application sends the information automatically to Rubicon, where it is scheduled, routed, optimized, and assigned to a truck. Once complete, Rubicon's system sends the customer an email to tell them that their service was completed.

Another example of the City's commitment to integration is with 311. The citizen feedback system makes it easy for City residents to report missed pickups, illegal dumping, and numerous other nonemergency issues. These issues are vetted and automatically routed into Rubicon's system so they can be managed. Once a particular issue has been addressed, the citizen is made aware that their issue has been handled.

**Budget:** Total investment across the Kansas City fleet is around \$300K per year; return on investment is estimated at around \$2 million. Rubicon offers cost-free pilot programs to all cities across the United States. If a city is interested in how it can leverage

**Funding:** General Purpose City Funds

**Tags:** Service Delivery Improvement, Innovation, Cost Savings, Environmental Impact

**For more information, contact:**

Michael Allegretti  
 Chief Strategy Officer, Rubicon  
 mallegretti@rubicon.com  
 917-270-5167

Michael Shaw  
 Director of Public Works, Kansas City, Missouri  
 michael.shaw@kcmo.org  
 816-513-6995