



# Curb the Violations

Effectively communicating with residents about curbside waste violations using automatically generated postcards

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# Challenge - curbside violations

## Responsive, tailored educational postcard to residents who don't set out properly

On occasion, residents don't set out their curbside trash or recycling correctly:

- trash carts may be placed too close to objects like telephone poles or cars
- trash may overflow out of the cart
- recycling carts may contain material that is not recyclable.

These missteps slow collection and can create unsafe or unsanitary conditions. Unfortunately, notification of these mistakes may be inconsistent, delayed, or confusing.





## Our solution for generating postcards

- Postcard automatically created for addresses that had violations
- Can filter by number of violations
- Postcard notes the date and type of violation, and has optional comments from pick-up crew
- Handles edge cases of too many violations to fit on a card and empty violations records
- Generates a single PDF containing all postcards from LaTeX
- Has URL and QR code for site giving guidelines for putting out trash



# Example of Generated Postcards

Dear City of Knoxville resident,

We had the following problems collecting your trash:

- 2018-01-11 Your trash was not out.
- 2018-01-12 Your trash was not out.
- 2018-12-24 Your trash was not out.
- 2018-12-25 Your trash was overflowing making it difficult to pick-up.

We have the following notes regarding removing your trash:

- 2018-12-24 2 CITY TOTERS, REFILLED THE CANS ALSO
- 2018-12-25 TOILET

Cordially,

Knoxville Solid Waste Management

[http://knoxvilletn.gov/government/city\\_departments\\_offices/public\\_service/solid\\_waste](http://knoxvilletn.gov/government/city_departments_offices/public_service/solid_waste)



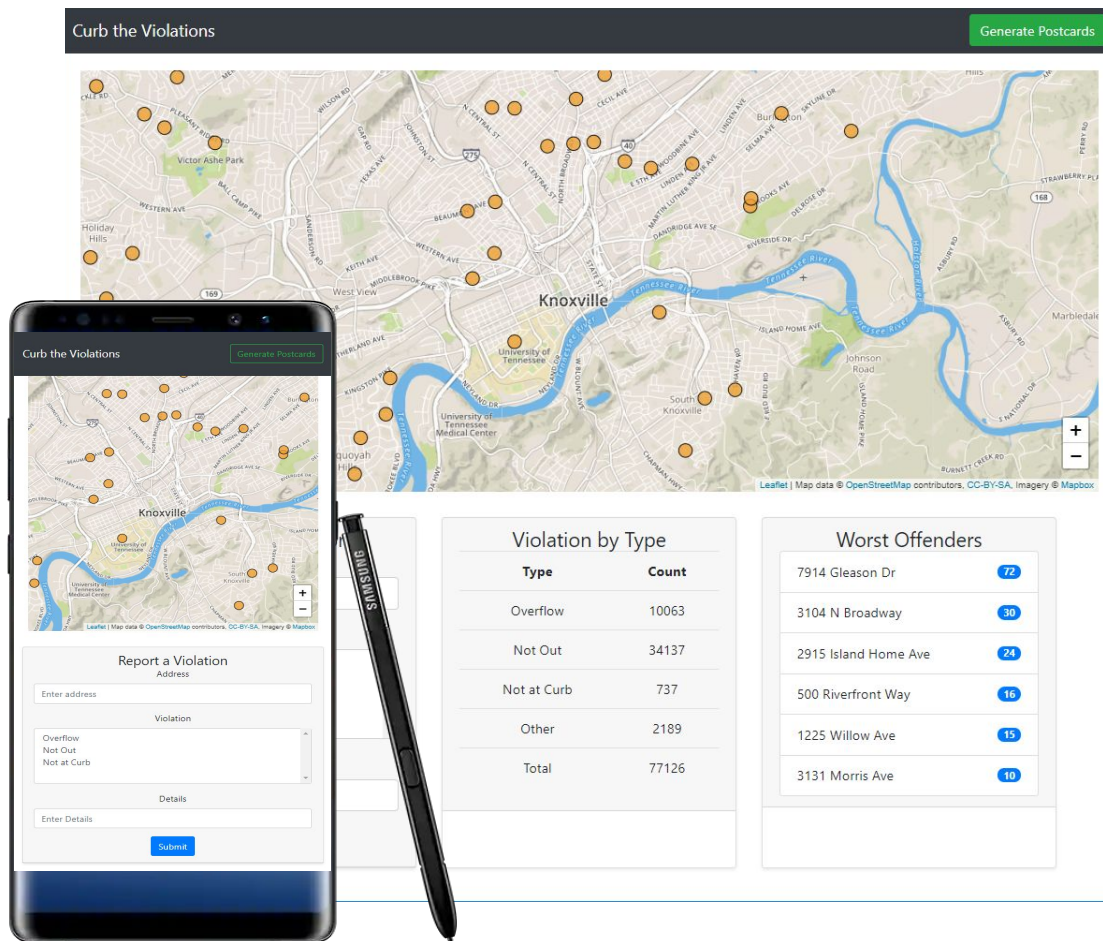
CITY OF KNOXVILLE  
MADELINE ROGERO, MAYOR

Knoxville Solid Waste Management  
400 Main St., Room 470  
Knoxville, TN 37902

Resident  
7914 GLEASON DR  
Knoxville, TN 37902

# Dashboard

- For internal department use
- Summaries and map of violations
- Form to enter a new violation
- Responsive design





# Design Principles

- Open source
- Microservices
- Containers

# Architecture

