

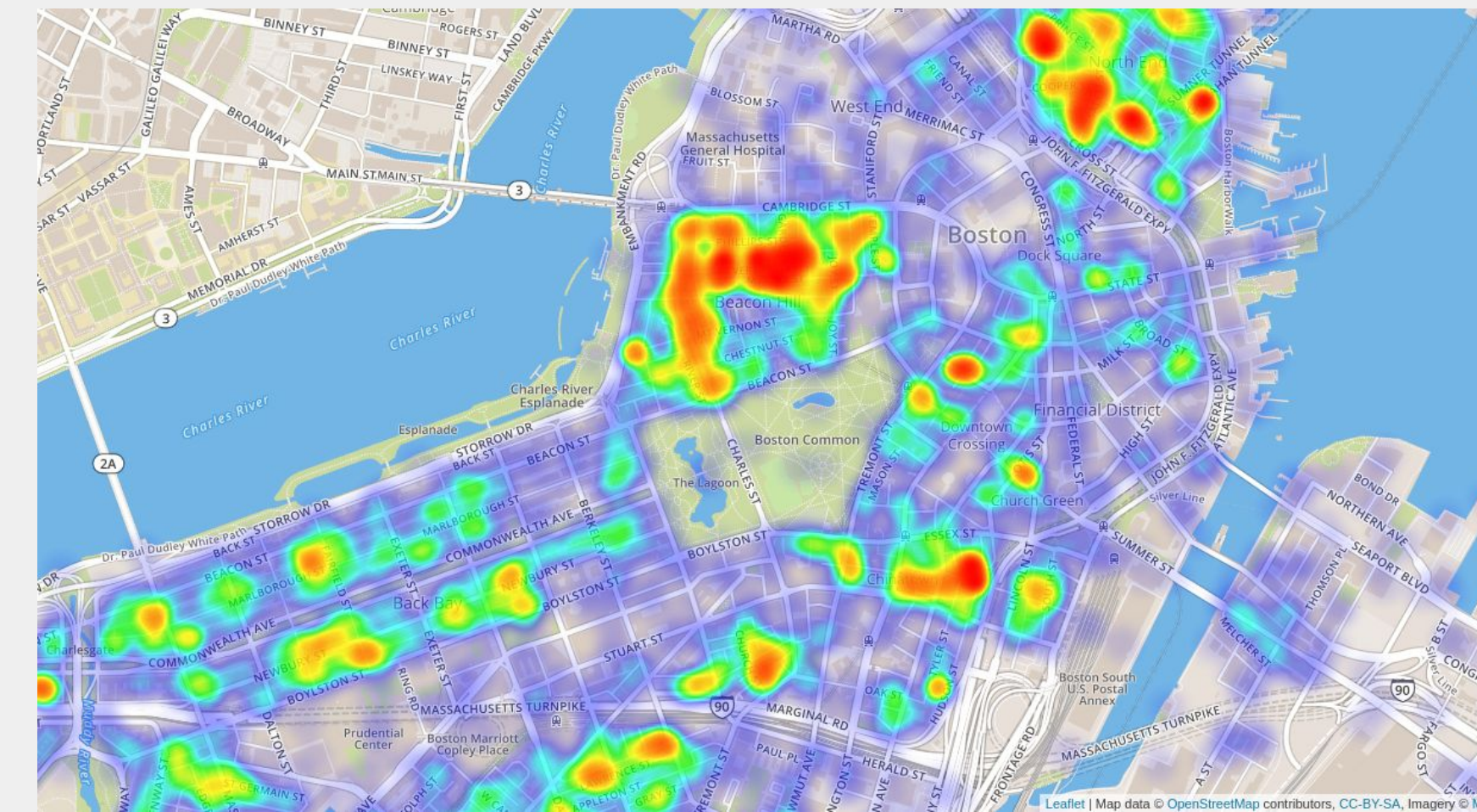
Hole Smokes! A Study of Potholes in the City of Boston

Introduction

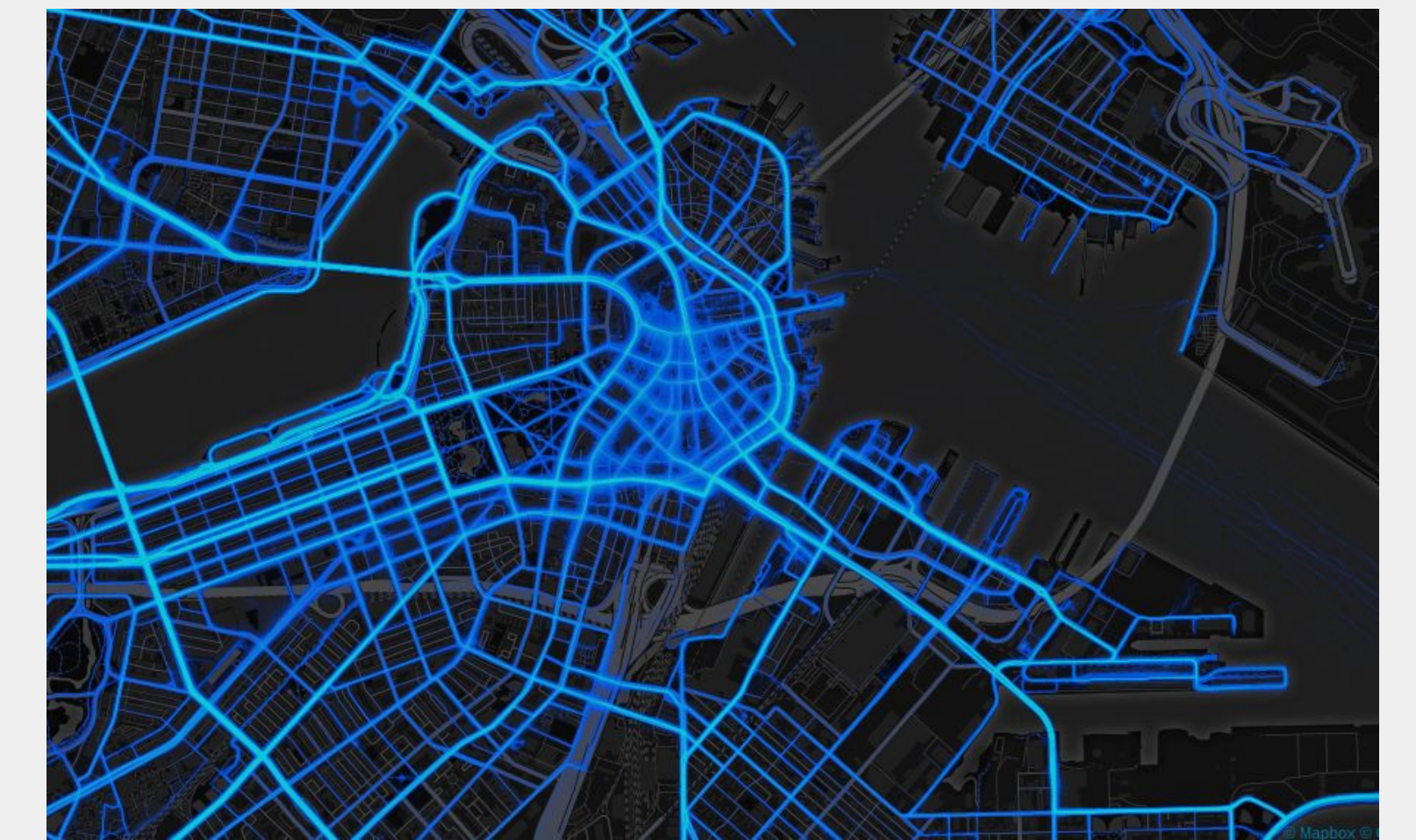
Bicycling in Boston is everywhere. However, being an old city, the roads are not always the most bike friendly. Apps like Google Maps aim to help bikers by giving them more “bike friendly” routes, but oftentimes this just means avoiding highways.

The City of Boston maintains an updated repository of the current state of roads in the city. The aim of this project was to expand on the capabilities of Google Maps using this data to provide bikers with more insight about the routes they are about to embark on.

Comparison with Strava



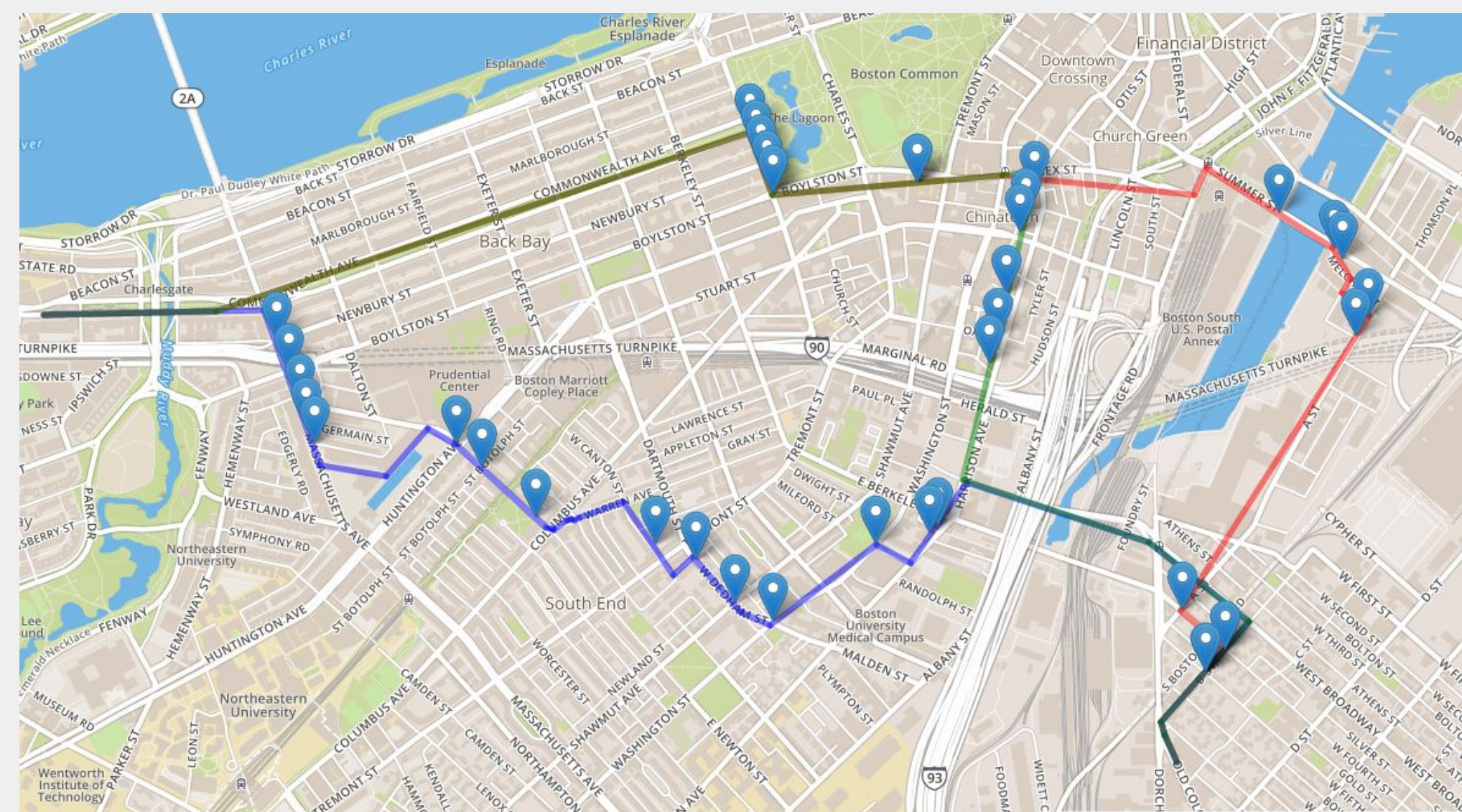
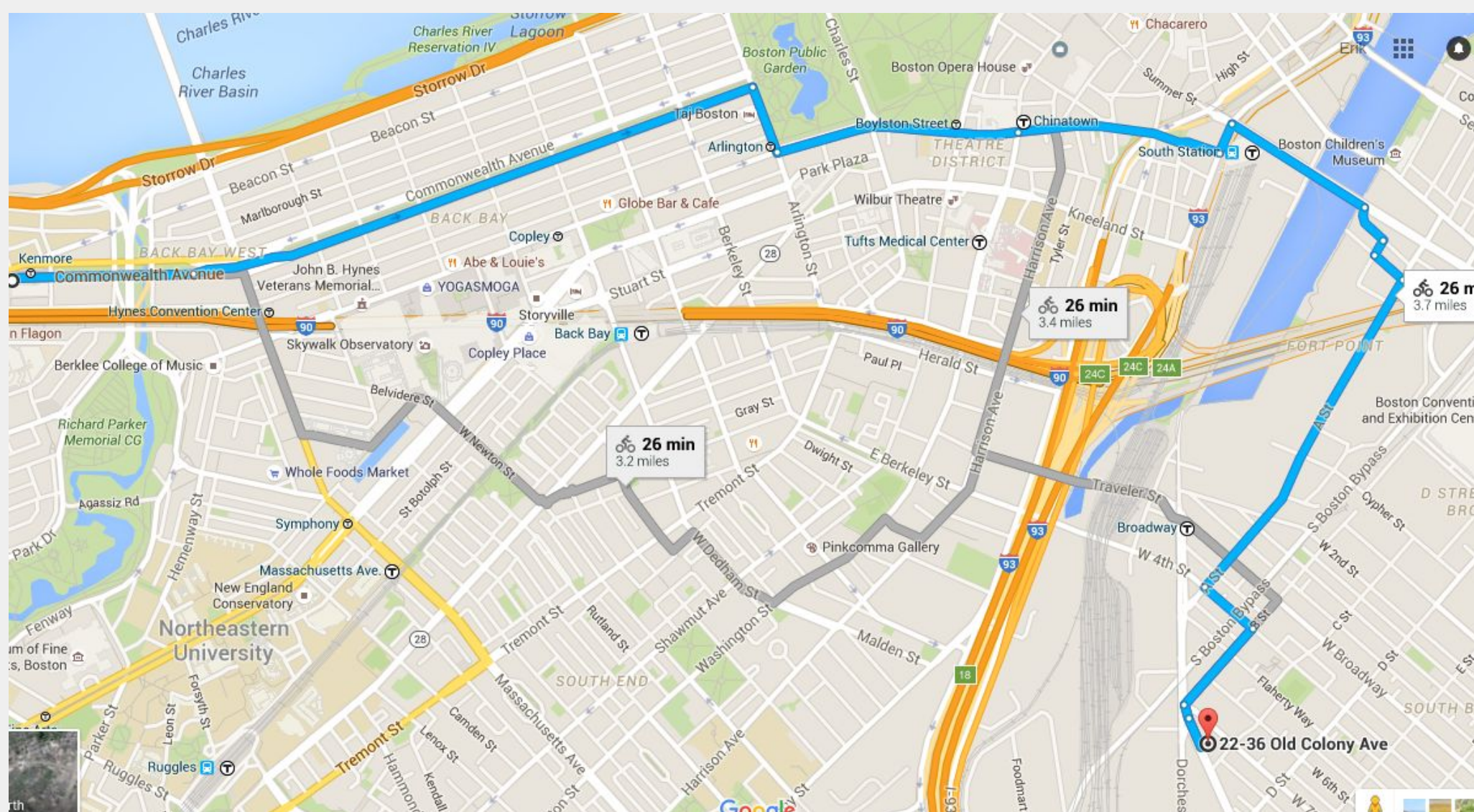
Heatmap of potholes, construction, and accidents in Boston



Strava heatmap of Boston

From this we can see that service call data seems to be a good indication of where bikers will and will not bike. Beacon Hill and the North End are riddled with events, and Strava (a popular social media bike activity tracker) reflects that bikers are less apt to bike in those areas

Comparison with Google maps



Using our pothole data, one can get better insight into the state of the routes that google maps return. This helps better inform a biker as to what route they may prefer.

Conclusion

There is a lot of data that the City of Boston collects that is relevant to the state of the roads. Building upon the infrastructure that Google has setup, we can provide more personalized tools to fit the needs of riders. In our examples, we have chosen to focus on potholes as there were a lot of data points to work with, and potholes are universally hated by bikers.

To extend on this, we can open up the tool to allow bikers to upload their own datasets (say for bike deaths in the city or active construction zones), and allow them to feel safe in making their decision to bike on a given route.