Research Aims:

Research has shown that while urban highways are important contributors to economic development, they also have a detrimental impact to their local surroundings. These impacts come not just from the displacement of local residents through their construction but long-term impacts due to noise and pollution result in health concerns and decreased land values among others. Traditional research on the impact of such infrastructure tends to focus on a section of highway and its impacts immediately adjacent, disregarding the different scales at play and other networks of infrastructure systems within the city, such as rail lines, canals, etc. This research aims to do just that.

- Consider all types of infrastructure and natural elements which shape the city, such as canals, rivers, railroads, highways, power lines, escarpements, etc.
- Explore the effects of these infrastructure on various levels such as regional, borough, neighborhood.
- Determine the impact these elements have had on the quality of urban form and land use patterns at a neighborhood scale.

Key results to date:

The research to this point has been focused at an island wide, determining the characteristics of the infrastructures and natural elements which are of concern. The below images show the progression (top to bottom, left to right) from natural elements which shape early growth, to the introduction of highways, rail lines and other elements which create a patchwork of liveable spaces. As more layers are added these spaces become smaller and diverse in shape, allowing areas of increased concern to be revealed. At this stage the research shifts gears and becomes less about the infrastructure itself but more about the neighbourhoods themselves (yet to be determined) and how the location of the various elements described above has impacted the neighbourhood as a whole.