# SOUTHEAST COMMUNITY PLAN: MITIGATING THE URBAN HEAT ISLAND

Master of Urban and Regional Planning

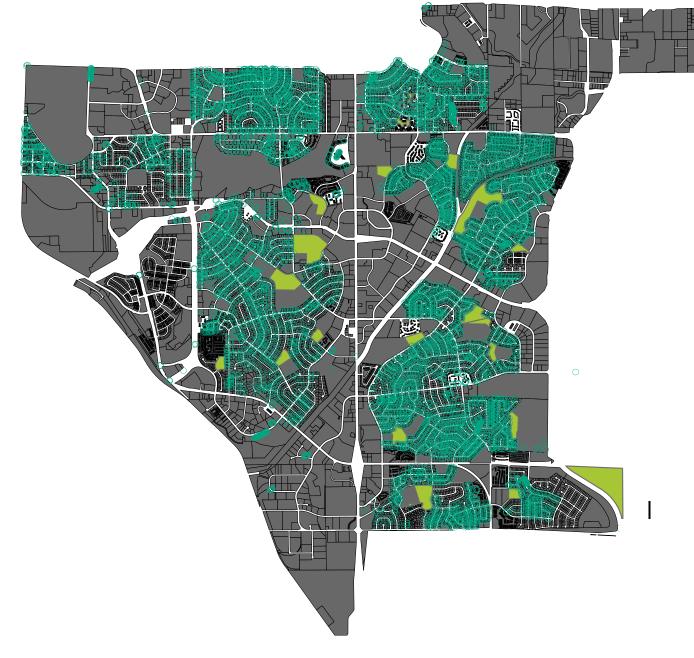
Student Researcher: Andrea Vaughn



#### DEFINING THE URBAN HEAT ISLAND

The urban heat island (UHI) is characterized by the temperature difference experienced in rural versus urbanized areas and, on average, urban areas tend to be 20 degrees warmer. The urban heat island is felt all-year round, but can be deadly during heat waves and is felt disparately in low-income communities and communities of color. Mitigating UHI provides opportunities for equitable economic development and place-making.

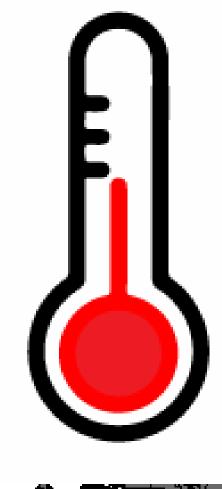
## **EXSITING CONDITIONS**



The map above demonstrates that there is a *lack of* vegetation and green space along Academy Boulevard. The map to the right illustrates the existing parking lots along a 3.5 mile stretch of the corridor.

Southeast

is **1.6** degrees warmer than the city

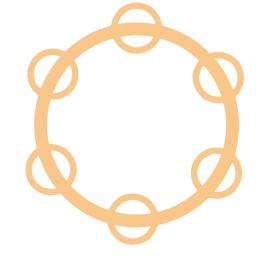




Academy Boulevard has 120 ACRES of parking lots within the study area

#### **RE-ZONING FOR SUCCESS**

It is recommended that a form-based code be developed and applied to the Academy Boulevard corridor to enhance activity and implement measures aimed at mitigating UHI.



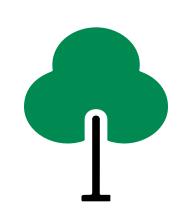
Provides a guide for harmounious development



Developed around a community vision

Streamlines the development process

#### INDICATORS OF UHI



Lack of vegetation and open space



Exposed pavements



Building mass and

### **DEMOGRAPHICS**



58% of residents identify as BIPOC



19% of residents are vulnerable to the effects of heat



40% of residents live at or below the poverty line

## **UHI MITIGATING MEASURES**

- » Require shade trees
- » Open-space requirement for new development
- » Consider parking maximums
- » Shade public right of ways



- » Covered parking stalls
- » Cool roof requirement
- » Encourage varying heights

