

Charlottesville City Bicycle Lane Necessity

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Project Introduction

- ❖ For many years, Charlottesville has been a city that has prided itself on having a large number of people who choose to commute via bicycle.
- ❖ Although the city has taken precautions to help prevent bicycle related injuries with extensive bicycle lane add-ons over the years, Charlottesville sees an average of 21 crashes involving bicycle and motor vehicles each year.
- ❖ This fact concerned me especially since I will be attending UVA and will likely commute by bike in the near future.

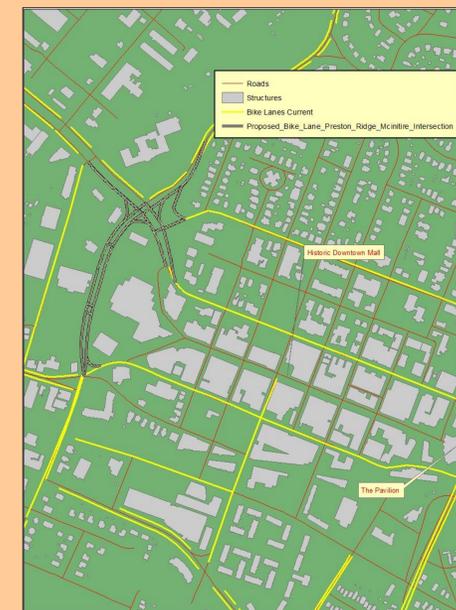
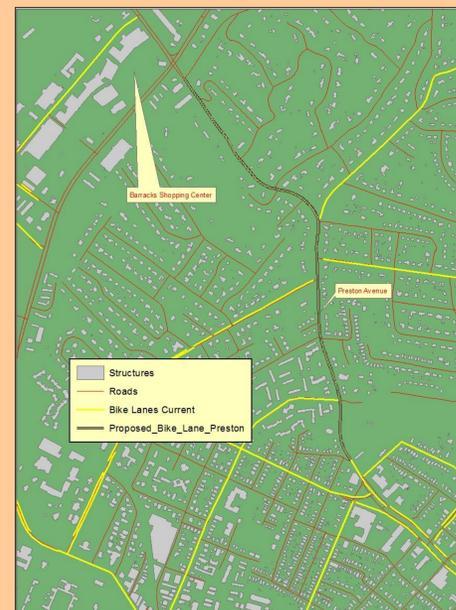
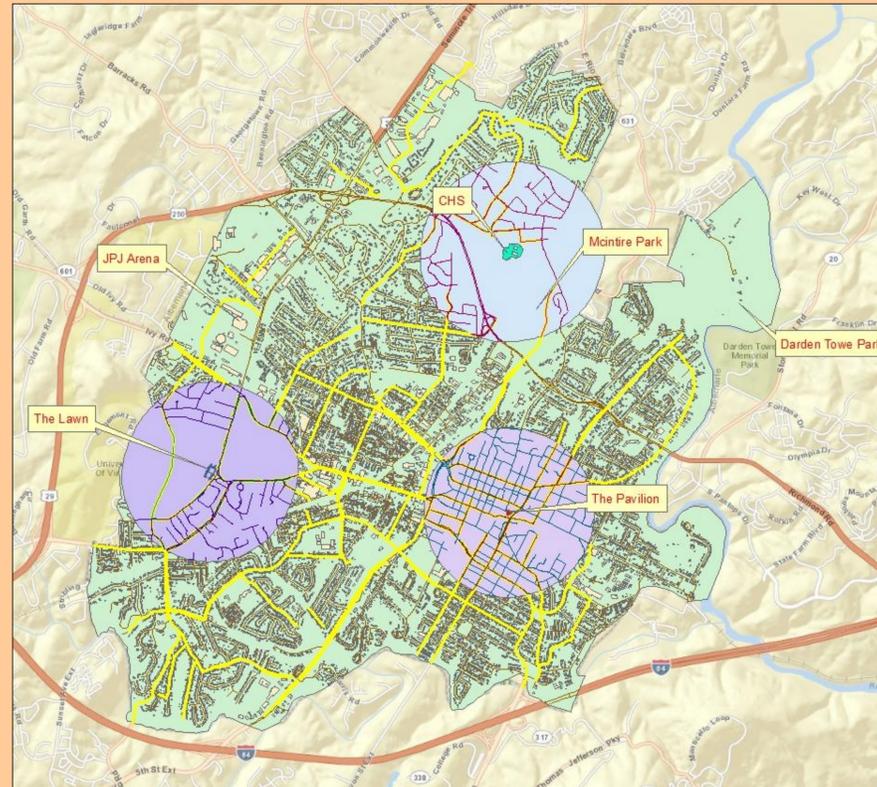
City Name	Population	Average Crashes
Charlottesville	43,751	21
Chesapeake City	225,050	22.25
Hampton City	136,401	17.5
Alexandria City	44,301	17.5

Why is this happening?

- ❖ My Hypothesis for why Charlottesville has so many accidents is a lack of consistent bicycle lanes on many roads

Objective

- ❖ Locate specific areas within Charlottesville that have a need for more bicycle lanes.
- ❖ How? By analyzing the already existing bicycle lanes alongside bicycle and motor vehicle accident locations to spot trends.



Conclusion

- ❖ Based on the information collected from my research and analysis of Charlottesville, the percentage of bike lanes to city roads throughout the city illustrates the serious need for more consistent connection in order to bring down the number of crashes per year.

Analysis

- ❖ To help illustrate Charlottesville's lack of bicycle lanes, I created a buffer with a ½ mile radius around several areas where bicycle use is especially heavy.

Location	Miles of lanes	Miles of roads	%(lane to road)
CHS	2.48mi	11.08mi	22.38%
Pavilion	7.49mi	22.04mi	33.98%
The Lawn	4.99mi	10.58mi	47.12%
Charlottesville	50.66mi	173.16mi	29.26%

Analysis

- ❖ My original plan was to acquire data from the Charlottesville Police department to show the locations of accidents. Then I was going to use the geoprocessing tools to spot trends between the locations of the accidents and the bicycle lanes.
- ❖ To find areas that needed bicycle lanes. It was necessary to view documents from a master plan implemented by the City of Charlottesville in 2002 for placing a vast array of lanes within the city.
- ❖ Included in the plans were maps showing where the lanes were planned to be placed. The two maps to the left show two roads that were originally slotted to be worked on, but in the end did not have lanes added to them. I used this as my criteria for choosing where new bicycle lanes were needed in the city.

References

- ❖ Data and information obtained from the DMV GIS website, City of Charlottesville GIS website, and the U.S. Census