

i-Tree Design

i-Tree Design allows Carrboro residents and businesses to make estimations of the benefits which trees provide to their property. Simply inputting location, species, tree size, and condition provides users a report of greenhouse gas mitigation, air quality improvements, and stormwater interception. An additional step of drawing a building footprint and virtually “planting” a tree returns tree effects on building energy use.

Tree benefits are estimated for

1. The current year
2. A user-specified forecast year sometime in the future
3. Total benefits across the future timespan
4. Total benefits provided to date

How to use i-Tree Design

To get started on learning how much money trees can save you annually visit:

<https://design.itreetools.org/>

1. Enter a street address – a Google Image overhead view of your property will load.
2. If you would like to calculate the impact of trees on your cooling and heating utility bill outline the structures on your property. If not, skip to step 4.
3. Select this tool  and click on the first corner of the structure. Continue to click on subsequent corners until the final corner is reached. Double-click on the final corner to complete the outline of the structure.
4. Specify your tree’s species, diameter, condition, and exposure to sunlight. In this example, there is a Willow Oak in excellent condition, exposed to full sun, with a diameter of 6 inches.

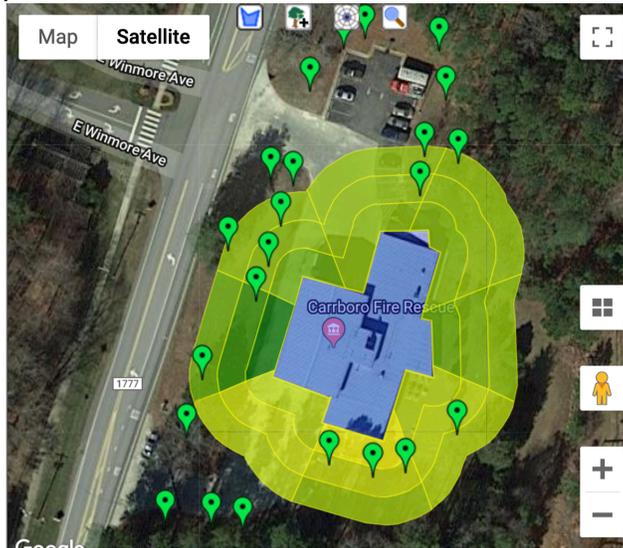
2. Place Trees ?

Describe your tree:

- Tree species: (South region)
- Tree diameter: Inches
or circumference:
- Tree condition:
- Tree exposure to sunlight:

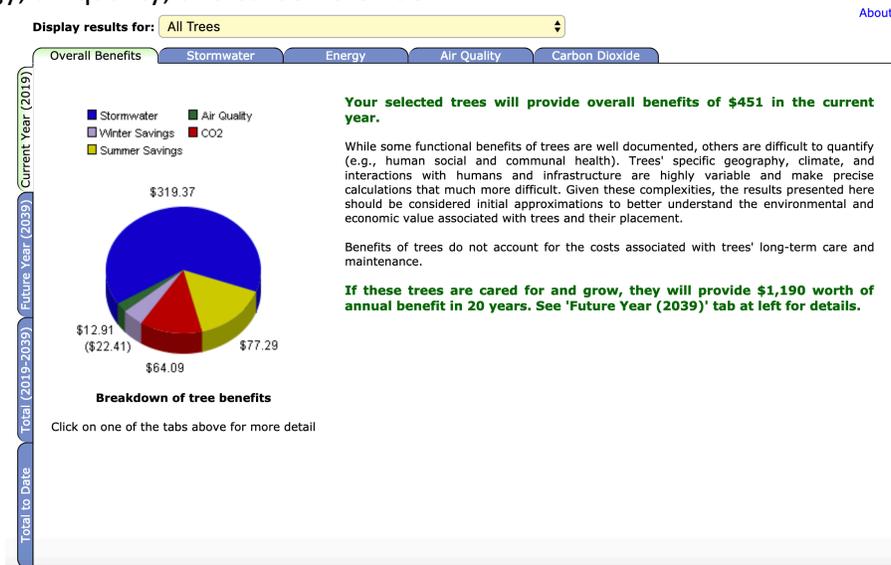
5. Once the tree’s basic information has been input, the tree can be placed to its location on the property using this tool . When doing so, a buffer will appear around the

outline of the building. This buffer represents the least and most desirable locations for that specific tree species – a great way to visualize the best locations to plant new trees on your property!



Less desirable  More desirable

6. Once all the trees on your property have been placed, enter the number of years which you would like i-Tree Design to track the future of tree growth and benefits.
7. Click on “Calculate” to receive the report on tree benefits on your property!
8. First, you will be presented with the overall benefits trees on your property save you in the current year. The report can be navigated by selecting the type of benefit (along the top) and the time frame (down the side). Learn about benefits related to stormwater, energy, air quality, and carbon dioxide.



In this example, trees on the property of Carrboro Fire Station 2 save approximately \$451 in the current year and to date have provided overall benefits of \$11,184.