

Street tree case study of University Courts Historic District, Bloomington, Indiana

Bryan Cronin, Serhat Erumit, Jose Iracheta Carroll, Jana McGee, Diane Moon, Patricia Peng, Andrea Reifeis, Haley Ritger, Colin Shumake, Sarah Widney
 School of Public and Environmental Affairs, Indiana University, Bloomington, Indiana, SPEA-E522, Professor Burnell Fischer, Spring 2014

Neighborhood Overview

University Courts is a historic district in Bloomington, Indiana, platted between 1910 and 1913, that includes houses, duplexes, apartments, fraternities, sororities, and Indiana University offices (Fig. 1).

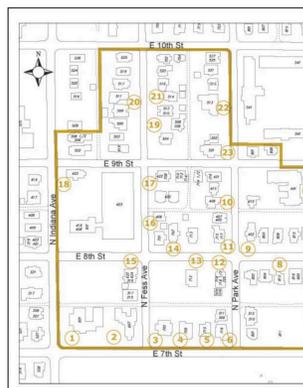


Figure 1. Map of the University Courts neighborhood. Source: City of Bloomington, Indiana.

University Courts is the only area in Bloomington that still has brick streets. Most buildings are constructed of brick or limestone with slate or clay tile roofs in the popular revival styles of the time including Georgian, Spanish Colonial, Mission, and Colonial. Buildings were designed by known firms including Bloomington architect John L. Nichols (1859-1929) and English architect Alfred Grindle (1863-1940). The first building in the neighborhood was the Sigma Chi house designed by John L. Nichols and built in 1906 at 601 E. 7th St. (Fig. 2). Nine Greek Letter Societies have been housed in the neighborhood over the years. In the 1960s, residences were converted to Indiana University offices, and demographic changes began. The area is endangered by the IUB Master Plan, and several historic houses will be torn down to build a new fraternity house.



Figure 2. The Sigma Chi house in 1907. Source: IU Digital Library Program and Indiana University Office of University Archives and Records Management.

Tree Inventory

An inventory of all street trees in the University Courts neighborhood was conducted in 2007 and updated in 2014. Information for each tree in the inventory included street address, location, species, condition, diameter, lawn width, maintenance needs, and presence of an overhead utility wire, as well as any additional comments.

The inventory revealed low species diversity with four tree species accounting for two-thirds of the street trees in this neighborhood (Fig. 3). A commonly accepted “10-20-30 rule” states that an urban forest should have no more than 10% of a single species, 20% of a single genus, and 30% of a single family. The trees in this neighborhood do not conform to this rule, raising concerns about the sustainability of the neighborhood’s urban forest. However, the size class distribution indicates a sustainable population because the majority of trees are in the smaller size classes and frequency decreases with increasing size (Fig. 4).

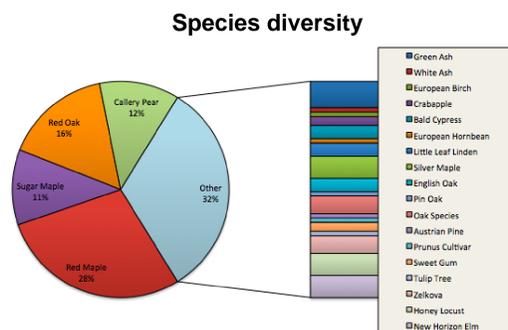


Figure 3. Street tree species diversity in the University Courts neighborhood based on data from 2014 inventory.

Size class distribution

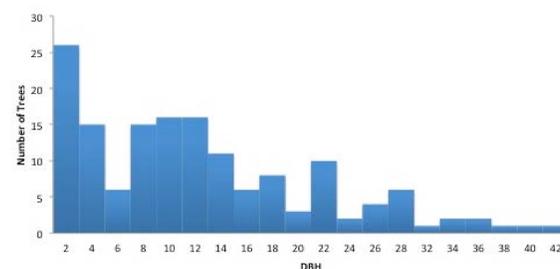


Figure 4. Size class distribution of street trees in the University Courts neighborhood based on data from 2014 inventory.

Community Survey

We sent an email survey to Indiana University offices located in the University Courts neighborhood to gain more information about attitudes towards trees in this neighborhood by residents and stakeholders. We had a response rate of almost 40%. Responses indicated positive attitudes toward trees and negative attitudes toward the new fraternity house (Figs. 5-7).

Attitudes toward neighborhood trees

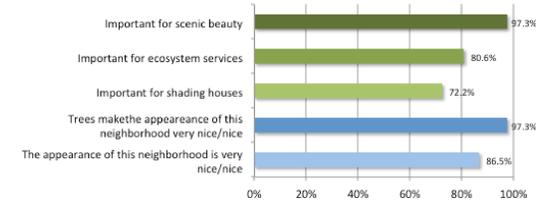


Figure 5. Responses to: What does the community think about University Courts and its trees?

Attitudes toward new fraternity house

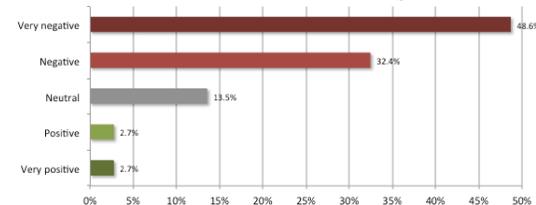


Figure 6. Responses to: How are your feelings toward this proposed construction of a new fraternity house?

More trees after construction

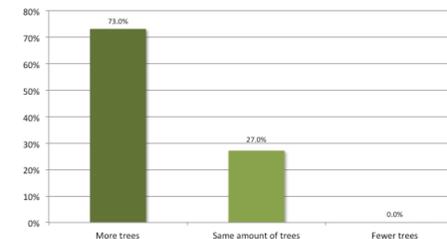


Figure 7. Responses to: After the construction of the new fraternity house, would you like to have...?

Favorite/special trees of survey respondents (with number of times mentioned):

- Ginkgo tree near the Mathers Museum and in front of the Tri Delta house (3)
- The Ostrom tree in front of the Ostrom Workshop (2)
- Sycamore at 7th and Park (1)
- Crabapples at 506 N. Fess and 512 N. Fess (1)
- Bradford pears at the Mathers Museum (1)
- Flowering trees (magnolia, redbud, and dogwood) (1)
- Japanese maple at the Mathers Museum (1)

Street Tree Plan

Mission Statement: The City of Bloomington has a legal and moral obligation to maintain healthy and safe trees on municipal land and public streets. The University Courts Street Tree Master Plan is a reasonable, responsible, and necessary way to make the neighborhood more aesthetically pleasing and to reduce tree-related problems.

Goals and Objectives: To provide for the continuation of the existing street trees in University Courts and preserve the historic character of the neighborhood.

Key Principles and Policies: It is the policy of the Bloomington Parks and Recreation Department that the city will have tree-lined streets. Therefore, each available planting space in the neighborhood will be planted. A street tree will only be removed and replaced if it is dead or dying or if it develops structural defects that can lead to failure of the whole tree or large portions of the tree.

Recommendations: Plant in the 25% remaining open sites (Fig. 8) and diversify tree species.

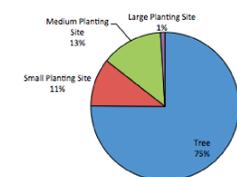


Figure 8. Tree planting sites in University Courts.

References

- Bunn, R. 2014, March 13. Bloomington City Council: University Courts Historic District approved. The Herald-Times, A3.
- City of Bloomington, Indiana. 1988. A walk through the University Courts Historic District. 3rd ed.

Acknowledgments

We would like to thank Professor Burnell Fischer for his assistance with this project and the Indiana University offices located in this neighborhood for their participation in our survey.

For further information

Please contact the Bloomington Urban Forestry Program or the University Landscape Architecture Department.