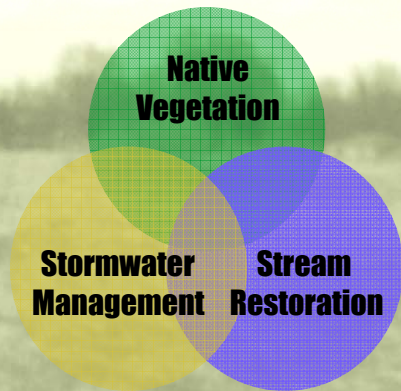


Objective

The objectives of IPRO 371 were to plan, design, and implement a sustainable landscape for the Rice Campus of the Illinois Institute of Technology. The main focus of the team for its first semester was to develop a sustainable landscape design, and to gather feedback on the proposed plan.

Team Framework



- **Stormwater Management**—dealt with Best Management Practices (BMPs) regarding the parking lot, pervious pavement, and rain gardens
- **Stream Restoration**—dealt with erosion control, soil bioengineering, riparian buffer, and course alteration
- **Native Vegetation**—dealt with plants native to northern Illinois that could potentially be used in the various landscape applications of the Rice Campus

Current Conditions

The Rice Campus of IIT is located in Wheaton, Illinois, along the banks of a tributary of the East Branch of the DuPage River called Willow Brook.

- **Parking lot**—over 100,000 square feet of asphalt, has 291 parking spaces, and 0 trees
- **Lawn**—14 acres of turf grass surrounds the building and requires significant maintenance
- **Stream**—steep banks that are armored with “shot rock” and contains two linear riffles
- **Vegetation**—primary planting at the campus is turf grass with only a few trees on the site

Conclusion

The landscaping at the Rice Campus is not sustainable: it requires a significant input of energy and fails to reduce environmental impacts .

Solutions

- Install **porous pavers** in the reduced parking lot and landscape with trees and **rain gardens**
- Create a **prairie** to filter and absorb water more effectively than the current lawn
- Use **meanders** to adjust the course of the stream and **riffles** to promote aquatic life
- Develop a **riparian buffer** system to filter water and prevent erosion and incorporate **soil bioengineering**
- Use **native vegetation** to reduce maintenance

Looking Forward

Before our recommendations can be implemented, there are still several steps that must be accomplished.

1. Finalize design with all stakeholders of Rice campus
2. Research sources of funding for sustainable landscaping
3. Develop detailed schedule for installing design
4. Created a plan for IIT to educate the community and encourage other sustainable projects. In turn, IIT will become a prominent leader in environmental consciousness and sustainability.

Thank You

The team of IPRO 371 would like to extend our appreciation to all those who helped our group throughout the semester, especially Joseph Buri of IIT, Don LaBrose of DuPage County, Danielle Green of the US EPA, and the staff and students of IIT's Rice campus.



before



after



sustainable | P R O 3 7 1 | landscape

sustainable landscape
design and implementation
at the Rice campus

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