University of Minnesota Twin Cities Campus Arboretum

Chapter Three: Transporting People To And Through

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Introduction

The route chosen was the Campus Connector route. This seemed like an ideal route for many different reasons. First, this bus route is already established and connects all three campuses. Second, the campus bus system is free and open to the public. Third, many of the bus stops along the route are near or within walkable distance to the potential sites we chose. Forth, along the route there is potential to collaborate with neighboring communities who may also want to participate in this project. We wanted to incorporate each campus into the arboretum – West Bank, East Bank, and St. Paul. Each campus has its unique greenspaces and potential, as well as representing different types of urban ecosystems. West Bank would be able to show people what densely populated, and highly urban forests and green spaces look like. There is also potential to showcase how different forms of green infrastructure can be used in a highly urban setting, how to reduce impermeable surfaces, as well as research for what trees and plants do well in these harsher conditions. St. Paul represents the ideal urban greenspaces and forests, without the dense population and large amounts of impermeable surfaces. There are large areas of open space, and the maintenance and health of the greenspaces are well kept. East Bank represents the transition between West Bank and St. Paul campuses – highly urban, but still relatively undeveloped. We also chose this route because of the transitway between the St. Paul campus and the East Bank campus. We felt that this area would be an ideal opportunity to research ecological restoration of industrial sites. With a growing interest in integrating green spaces into urban environments and looking at climate change, we felt that now would be an ideal time for the campus to get involved in integrating more greenspaces.

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Phasing for Campus Arboretum

Acknowledging the University of Minnesota as a campus arboretum is no small task. Incorporating phasing and long-term goals is an effective way to achieve results; all the while being able to adapt or change with an end goal in mind. Breaking the process up into 3 Phases would be a good starting point. Identifying goals within each Phase will help realize the ultimate objective of creating a campus arboretum.

Phase 1 (Year 1-2)

1. Route Identification
    - Utilize the existing Campus Connector route and transitway

2. Incorporation with Public Transport connection with established transit routes

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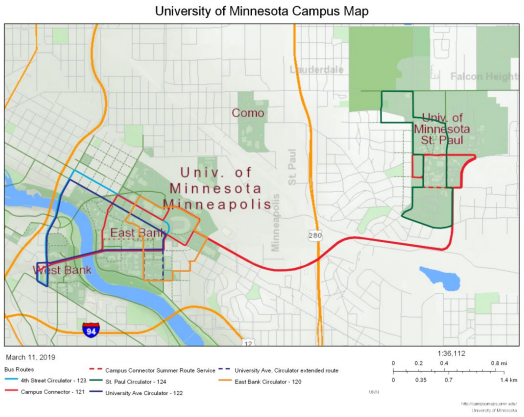

3. Primary Mode of Transport

- campus connector

https://www.law.umn.edu/why-mn-law/location

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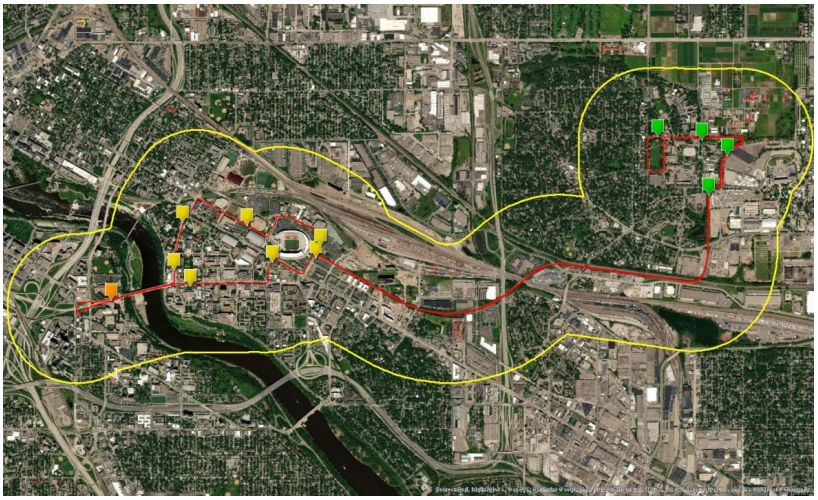
4. Bike / Pedestrian Audit

http://www.pedbikeinfo.org/examples/example_details.cfm?id=4919

5. ADA accessibility audit and identify the bike and pedestrian routes

<u>Phase 2 (Year 3-4)</u>



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1. Route Audit after Phase 1
2. Traffic impact & assessment
    - use half-mile buffer from the route for study (in yellow above)
    - implement changes if need be
        1. Secondary Modes of Transport
            i. auto/bike/pedestrian – routes need to be established and completed
3. Full Bike/Pedestrian/ADA Access
            i. ensures equality among users

<u>Phase 3 (Year 5-6)</u>

1. Final Routes Identified via Signage
    - integrated/universal signs for all forms of transport

Research Findings and Site Selection Rationale

Our research findings paired with Minnesota DNR biomes map brought us the conclusion that the St. Paul campus, the East Bank, and the West Bank could each represent a state biome region. Using this framework, we selected sites over all three campuses that could be used for educational, research, tourism, and University recruitment.

The Minnesota DNR (DNR, Minnesota, 2019) breaks up the biomes in the state into the following groups:

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Specific Sites Using the Biomes Model

St. Paul Campus

Biomes of Minnesota on St. Paul Campus

(CBS Minnesota)

Deciduous Forest

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Coniferous Forest and Wetlands

(Explore Minnesota)

We feel that the St. Paul Campus near the student center and the surrounding area have the established system in place to support the deciduous forest biome. The existing tree stock plus the desire to keep with the Falcon Heights landscape led us to our decision. Increasing tree density and species diversity would help create a more enjoyable campus. We envisioned that sections of campus would be almost like a trail in the forest. Down near the start of the Transit Way we felt that it would be best suited to create a coniferous forest system incorporated with the wetlands research lab already situated at this location. We suggest planting along the corridor almost like a sound barrier to keep out the surrounding city noise, light, and air pollution. The combination of the trees and the existing wetlands would be an ideal research lab with similar characteristics as Northern Minnesota.

East Bank

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Biomes of the East Bank

Tallgrass Aspen Parkland

(Nature Conservancy)

Prairie Grassland

(MN DNR)

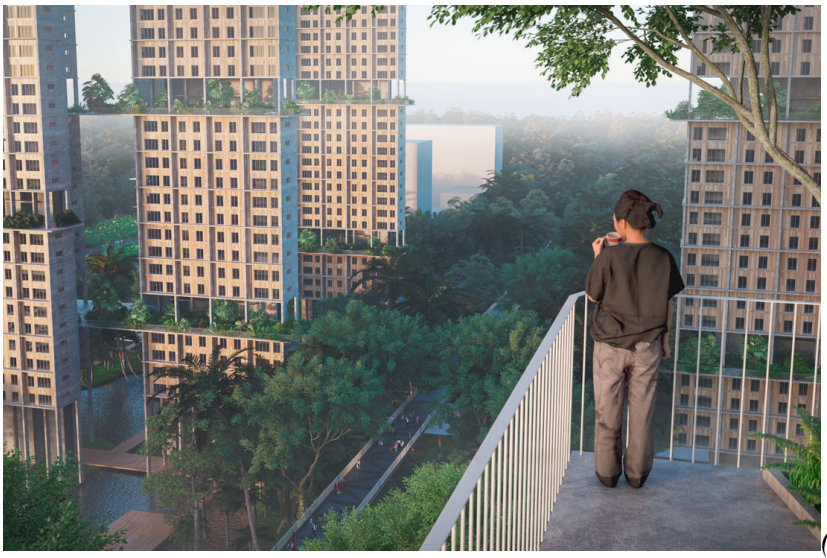
The East bank is covered in deciduous trees they are spread out, and there are areas of no tree coverage at all. These open spaces are already grasslands in a sense, and we felt that planting native species of tallgrass and prairie grass could give the area a more Minnesota feel. An additional benefit would be blue/green infrastructure capabilities of this idea. We discussed

bioswales in our presentation these would useful be new ones. Managing all that traffic and rail runoff is a priority to a healthy ecosystem.

West Bank

West bank campus would be the wildcard in the biomes model. The area represents the Twin Cities in its current state. Highly urban degraded and damaged ecosystems and high amounts of pollution. It was our groups view that this campus is used for the following.

Urban Ecological Restoration and Creation of New Ecosystems



(InDesign.live)

While this is a bit of stretch imagine working with the city of Minneapolis and doing this in the Cedar-Riverside Neighborhood. This could be down around the already existing building infrastructure.

Urban Farms and Food Hubs

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(Arch Daily)

(Huffington Post)

The idea would be again to incorporate the city and the surrounding neighborhood. This could help with relationships between the University and the communities. The area could be near the softball fields or in the Bohemian Flats.

Section Conclusion

Our group has created a model that could be used to carry out the projected arboretum project and to create something new altogether. The idea is that we are creating a healthy and more sustainable campus but doing our part to address the issues of Climate Change, rising pollution in the cities, and the food desert that exists right next to the university. Our group would argue that the University owes it to the people of Minnesota to create a genuinely new and revolutionary idea one that could make the Twin Cities an example for the other metros to follow.

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