Re-imagining River Road for Ecological Equity

Fall 2019
LTD

Julia Urone • John Arroyo

PPPM 445 Green Cities

UNIVERSITY OF OREGON

LTD

SCI Sustainable Cities Institute

SCYP Sustainable City Year Program

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Re-imagining River Road for Ecological Equity

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COLLEGE OF DESIGN

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Jennifer Zankowski, Senior Development Planner, Lane Transit District
Thomas Schwetz, Director of Planning and Development, Lane Transit District

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About SCI

The Sustainable Cities Institute (SCI) is an applied think tank focusing on sustainability and cities through applied research, teaching, and community partnerships. We work across disciplines that match the complexity of cities to address sustainability challenges, from regional planning to building design and from enhancing engagement of diverse communities to understanding the impacts on municipal budgets from disruptive technologies and many issues in between.

SCI focuses on sustainability-based research and teaching opportunities through two primary efforts:

1. Our Sustainable City Year Program (SCYP), a massively scaled university-community partnership program that matches the resources of the University with one Oregon community each year to help advance that community's sustainability goals; and

2. Our Urbanism Next Center, which focuses on how autonomous vehicles, e-commerce, and the sharing economy will impact the form and function of cities.

In all cases, we share our expertise and experiences with scholars, policymakers, community leaders, and project partners. We further extend our impact via an annual Expert-in-Residence Program, SCI China visiting scholars program, study abroad course on redesigning cities for people on bicycle, and through our co-leadership of the Educational Partnerships for Innovation in Communities Network (EPIC-N), which is transferring SCYP to universities and communities across the globe. Our work connects student passion, faculty experience, and community needs to produce innovative, tangible solutions for the creation of a sustainable society.

About SCYP

The Sustainable City Year Program (SCYP) is a year-long partnership between SCI and a partner in Oregon, in which students and faculty in courses from across the university collaborate with a public entity on sustainability and livability projects. SCYP faculty and students work in collaboration with staff from the partner agency through a variety of studio projects and service-learning courses to provide students with real-world projects to investigate. Students bring energy, enthusiasm, and innovative approaches to difficult, persistent problems. SCYP's primary value derives from collaborations that result in on-the-ground impact and expanded conversations for a community ready to transition to a more sustainable and livable future.

About Lane Transit District

LTD provides more than 10 million trips per year on its buses and EmX Bus Rapid Transit line in Lane County, Oregon. Encompassing the Eugene-Springfield metro area, LTD is a special district of the state of Oregon and led by a seven-member board of directors appointed by Oregon's Governor.

LTD also operates RideSource, a paratransit service for people with disabilities, and numerous transportation options programs to promote sustainable travel county wide, and Point2Point, an initiative that provides community members with the necessary information and resources to assist them in identifying opportunities to drive less by discovering transportation choices that meet their individual lifestyles.

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Executive Summary

LTD tasked students with identifying concepts to support a more sustainable, equitable transportation system and associated community uses along the River Road corridor in Eugene. Working in groups, students investigated transportation ecosystems, environmentally-oriented community benefits, and dynamic neighborhoods in other jurisdictions and around the globe to identify strategies that could be applied locally.

To familiarize themselves with and begin to understand the unique characteristics of the River Road corridor, students conducted site visits and based on these visits, selected a site and topic for group study. These 70 students then divided into 15 groups to develop tangible, sustainable, and potentially implementable recommendations for the River Road area. Final proposals included a diverse inventory of design interventions, land use and transportation improvements, and community engagement plans.

Students in the course represented a variety of majors including architecture, business, economics, journalism, planning, general science, environmental studies, and social science. Following ten weeks of research, students presented their transportation and land use ideas to LTD management. Students recommended:

- Increased bus routes and infrastructure and more frequent service and wayfinding to increase walkability in the River Road area. These measures could also decrease the need for personal vehicle transportation and increase walking within the city, which would reduce carbon emissions.
- Safety improvements and bus stops at community spaces to encourage camaraderie within the community
- An array of community and green spaces improvements based in arts and culture as well as food security strategies to increase vitality in the River Road corridor and support a robust transit system.

Introduction

Collaborating with students in John Arroyo's Green Cities course, LTD's goal for this project was to discover small-scale, affordable, and easily operational creative approaches to support a more sustainable and equitable transit system for people living within the River Road area. The transit district sought input on ways to implement their services using green strategies in order to change and enhance their bus service while also having the secondary impact of improving neighborhood vitality.

Students generated ideas and specific recommendations that strove to improve quality of life for residents of the River Road corridor through improvements to transit and community green spaces. These proposals may engage additional public agencies or private entities such as the City of Eugene, Lane County, PeaceHealth Rides, Lane County Farmers Market, School District 4J, Food for Lane County, River Road and Santa Clara neighborhood associations, area nonprofits, local farmers, arts and cultural organizations, and community leaders.

This report is organized according to broad topic areas and specific student group projects. The first half of the report discusses research on bus routes to community spaces and how these routes could be more effectively implemented in the River Road area. It then details student reports related to community spaces, resources, and park refurbishment. The second half of the report summarizes student research on accessibility and safer bus stops. It then details student reports related to transportation and safety. The report follows this structure to pair students' background research with their team projects as effectively as possible.

The following is a list of student teams and their project titles, organized by their focus areas. Teams names reflect cities across the globe that have successfully adopted green city strategies.

Community Spaces and Resources

- Team Boulder: River Road Outdoor Community Space
- Team Georgetown: Community Resources at Messiah Lutheran Church and School
- Team Sapporo: A Community Market in the River Road Neighborhood
- Team Savannah: Food Access and Ecological Education in River Road
- Team Sydney: Improved Bee Habitat Through Community Awareness
- Team Victoria: Community Garden in River Road

Park Refurbishment

- Team Burlington: Rasor Park Restoration
- Team Copenhagen: West Bank Park Refurbishment
- Team Curitiba: Maynard Park Redevelopment
- Team Helsinki: Redevelopment of Rasor Park
- Team Oslo: Placemaking in Maurie Jacobs Park

Transportation and Safety

- Team Hood River: Protected Bike Lanes for River Road
- Team Kigali: Pedestrian Safety and Community Engagement Along River Road
- Team Portland: Riverbank Path Wayfinding Improvements

Improving the Corridor: Research and Observations

During site visits to the River Road area, many students noticed several plots of empty grass fields without any perceivable use. Because class discussion emphasized the desirability of "green spaces," many students focused their projects on how to transform those plots along River Road into functional community green spaces. Students concluded that inclusion and access to "green spaces" within the community may promote sustainable design for many different projects.

THE BENEFITS OF GREEN SPACES

Students suggest implementing bus routes and electric buses that travel to green community spaces as a strategy to improve sustainability in the River Road area. In addition, this bus service could promote the growth of community space and community camaraderie. This could improve the sustainability and wellbeing of the community as people who may currently be isolated in their homes and neighborhoods would have greater access to places that promote community activity. In turn, residents may be more inclined to use LTD as a means of travel. This could lead to a more sustainable city as people become more involved in the community, and opportunities for action increases.

Some student research advocated for community gardens. If bus routes were to stop by places like community gardens, sustainability has the potential to increase through decreased grocery shopping, increased natural harvesting and fewer vehicle trips. Student research also found that increased accessibility to community spaces increases mental and physical health. Improving access to community spaces within the River Road community may support mental and physical health while at the same time improving transit outcomes. An increase in transit ridership could therefore allow for future transit expansion and innovation.

Health

Incorporating green spaces directly into neighborhoods may increase health benefits. It is possible that urbanization in River Road has increased stress because there are few non-vehicle modes that allow travel outside of the neighborhood. Green spaces, however, may help solve some of these issues. Hunter's article on green spaces highlights how contact with the natural environment can "...trigger positive emotional effects and can restore well-being" (p. 130). Even a short walk in a green space can significantly enhance relaxation and restoration. Another finding from this study shows how the immune system function can be increased through interaction with the natural environment. This is due to the microorganisms found in green environments that are able to boost immune systems.

FOOD SECURITY

Based on their observations, students felt that the River Road community has few grocery stores selling healthy and affordable food. Students, some of whom have experience with food insecurity, believe in the importance of food security and were passionate about creating methods and starting collaborations to help solve these issues. Students determined that there is only one organic grocery store along the main road, just south of Thistledown Farm. Large chain grocery stores found further south include Albertsons, Fred Meyer, Bi-Mart, and Grocery Outlet. Other food options along River Road are either gas stations or fast food restaurants. Findings show that limited grocery stores increase food insecurity due to overspending and a lack of accessible travel. In River Road, the main factors that could cause food insecurity include limited transportation options and the geographic distribution of food retailers, as the grocery stores are centered at the intersection of River Road, Division Road, and Randy Pape Beltline. The area lacks a community garden or nearby grocery store that could provide healthy and nutritious food for corridor residents. Having a "green" community and providing food security go hand in hand. Students recommend collaborating with Food for Lane County, an organization that currently works to combat food insecurity. This organization has a program called Produce Plus that supplies free produce to PeaceHealth patients weekly. If LTD partnered with this organization, riders could travel to and from food organizations to receive groceries. In turn, LTD could benefit from increased ridership while promoting sustainable living. Follow-up on potential partnerships or collaborations with area farms and farmers may also help reduce food insecurity.

FIG. 2A

This figure depicts can collection bins from Food for Lane County. Residents within communities can donate to food drives through this system.

Student Reports: Community Spaces and Resources

In line with their research from Envision Eugene, LTD Moving Forward, and the River Road Santa Clara Community Plan on community space, some student teams focused their reports on addressing the River Road area's perceived lack of community spaces. Students' recommendations included creating community gardens, gathering spaces, community centers, farmers markets, and apiaries among other features. Most recommendations catered to residents' needs according to past survey responses. By improving community spaces and resources, students believe the River Road community can become more unified through a stronger sense of identity. Additionally, students believe community spaces could give residents better connections to area resources.

TEAM BOULDER

Project: River Road Outdoor Community Space

Team Boulder addressed the River Road area's perceived lack of outdoor community spaces. The team proposed an outdoor community area and garden in the River Road neighborhood. Located on the corner of River Road and Hunsaker Lane, this space could be used by residents as a community gathering space and recreation area. Their proposal features garden plots, a stage, food trucks, and local art.

Recommendations

Students proposed the following recommendations to improve community space along River Road:

1. Increase the number of streetlights near open spaces. Increased streetlighting could promote nighttime use of neighborhood streets and provide safer access to the neighborhood, including the site of the proposed park.
2. Conduct a survey to assess the need for a community garden. Survey results will reflect community needs and desires regarding the garden, ensuring residents are heard.
3. Conduct a study on all vacant lots. This study will determine which lots are brownfields and help assess how each site could be best developed.

TEAM GEORGETOWN

Project: Community Resources at Messiah Lutheran Church and School

Team Georgetown proposed redeveloping the Messiah Lutheran Church lot into a community resource center with features including a community garden, a space to host community workshops, and a general gathering space. Students proposed partnering with the neighboring church to help facilitate these projects.

Recommendations

To further extend the benefits of their proposed community gathering space community-wide, students made the following recommendations:

1. Incorporate community green spaces across the Santa Clara neighborhood. Underutilized green spaces appear abundant in the neighborhood; establishing more connections and sites throughout the neighborhood could help foster

community vitality. Parks and paths could connect these green spaces, helping fulfill another community need.

2. Seek out partnerships with Food for Lane County. Food for Lane County currently operates community gardening programs on their main property in Springfield. Expanding these programs into the Santa Clara neighborhood could increase participation in the workshops while giving the community a valuable resource.
3. Establish connections to North Eugene High School. Students could learn the value of healthy eating, connections to the natural environment, and community engagement by working or attending workshops at the community resource center. Involving students could help them develop skills like responsibility and leadership.

TEAM SAPPORO

Project: A Community Market in the River Road Neighborhood

Team Sapporo proposed creating a biweekly or monthly market in Maynard Park. The market would feature food trucks, crafts, music from local artists, and transportation to and from River Road. The market could help improve the park's presence and improve community connections. Increasing Maynard Park's profile could facilitate better connections between the physical space and community members.

Recommendations

Team Sapporo proposed the following policy recommendations to help facilitate the Maynard Park community market:

1. Improve bike accessibility within the River Road area. PeaceHealth Rides could expand their existing partnership with LTD and provide more bike-share stations in the River Road area. Connections between transit and bike-share could give residents reliable transportation between their homes and existing transit routes along the corridor.
2. Improve transit along River Road. Increasing bus frequency and availability along River Road could increase residents' access while decreasing their reliance on personal vehicles, decreasing carbon emissions in the process. Additionally, improved transit could help non-area residents access the new market using non-vehicle modes.
3. Include the Lane County Farmers Market. The Farmers Market is already involved in the Eugene Saturday Market and could expand its presence to the new Maynard Park market. This could give River Road area residents healthier food options, increasing residents' livelihood and social wellbeing.

TEAM SAVANNAH

Project: Food Access and Ecological Education in River Road

Team Savannah proposed a multi-faceted solution to food insecurity in the River Road neighborhood. Students' proposals to food insecurity included improved signage, a community garden, farmers markets, and educational workshops. Team Savannah's plan sought to give residents access to local, healthy food options while promoting sustainable living. Additionally, students hoped to increase residents' awareness and involvement in their community.

Recommendations

Students proposed the following policy recommendations to help support their food security measures:

1. Install a monthly farmers' market in Rasor Park. This farmers' market could be modeled after the Lane County Farmers Market and occur once a month from April to early November. The farmers market would give residents better access to locally grown, nutritious produce while helping support the local economy.
2. Increase educational programs in parks. Educational programs could promote knowledge of urban farming, nutrition, and food insecurity. Programs could range from small-scale restoration projects to large-scale community gardens. Programs should be multilingual to cater to Lantinx residents in the area.
3. Create information centers to improve community awareness. Information centers could include a map of the area with local destinations as well as information about volunteer opportunities, community gardens, and educational programs. An app could be included as a part of this informational outreach campaign.

TEAM SYDNEY

Project: Improved Bee Habitat Through Community Awareness

Team Sydney proposed providing pollinators for a sustainable environment by facilitating community participation in building bee habitats, planting native species, and reducing harmful pesticides. Students proposed improving community involvement through a partnership with the Eugene School District. Ultimately, students hoped to stabilize the decline in pollinator populations in the area.

Recommendations

Students designed the following recommendations to implement their proposal:

1. Incentivize beekeeping through tax incentives. Tax abatements for those who keep beehives could incentivize more residents to become backyard beekeepers while minimizing red tape and bureaucratic complications. Tax abatements could be scaled based on the size of an individual's beekeeping operation.
2. Require signage for dangerous pesticides. Signs could inform consumers on best practices in pesticide use and show how pesticides affect pollinators. Emphasis should be placed on discouraging pesticides that harm pollinators, such as neonicotinoids.
3. Partner with the 4J School District. Education and outreach programs could provide Eugene's children with opportunities to learn more about bees and destigmatize children's common fear of bees. Workshops could educate children and adults on what they can do to strengthen local bee populations.

TEAM VICTORIA

Project: Community Garden in River Road

Team Victoria proposed a community garden on the corner of Maynard Avenue and River Road to help bring the community together. The community garden could be used as a common green space and promote local food production.

Additionally, the garden could help provide healthier food options for residents such as fresh produce.

Recommendations

Students proposed the following recommendations to help support the community garden:

1. Increase multi-modal transportation options to the area. LTD could serve as a transportation option for residents looking to travel to the new garden. Expanded transportation access through PeaceHealth Rides and/or additional bus lines could help improve community access.
2. Find dedicated community leaders to help support the garden. Those with gardening experience, leadership qualities, and who desire volunteer opportunities could be tasked with overseeing garden operations and helping community members become more involved. Community input into garden design and features is critical to maintained success.

Student Reports: Park Refurbishment

Parks provide additional, more specific community spaces for residents. Student research and site visits reveal that parks in the River Road area are generally underdeveloped and in need of improvements. Some student teams focused their recommendations on improving existing parks or creating new ones that cater to community needs. Proposed improvements include placemaking elements, connections to transit and alternative transportation modes, improved amenities, and development of unutilized space, among others. Students believe that improved parks, as a specific community space, give residents a community identifier as well as a shared communal space. Additionally, parks help foster healthy and sustainable living by promoting physical activity and providing access to green space and its associated benefits.

TEAM BURLINGTON

Project: Rasor Park Restoration

Team Burlington assessed Rasor Park and proposed a park restoration. The existing park lacks a clear purpose and native vegetation. Students proposed constructing a children's playground surrounded by restored native species. Additionally, students proposed placing educational tools throughout the park to educate children on native vegetation. The proposal focuses on creating a unique sense of place within the park.

Recommendations

Students recommended the following strategies to help implement park restoration:

1. Expand upon existing park amenities. Some paths and benches are already dispersed throughout the park. Students recommend expanding the existing infrastructure by lighting the paths, adding a children's playground, and constructing a covered, shared space. Ideally these additions would encourage more people to come enjoy the space and stay longer while there.

2. Set clear park boundaries. The existing park has no physical boundaries and spills into backyards and empty lots along some sections. Enclosing the park with a fence or natural barrier would give the park clear borders, establishing a physical identity while keeping the park safer and cleaner.
3. Improve the protection of native vegetation and wildlife. Rasor Park can become a sanctuary for native plants by removing invasive species and expanding the existing biodiversity. Protecting and expanding native plant species could help repair and/or improve the Willamette River riparian zone, which has generally been depleted in the Eugene area.

TEAM COPENHAGEN

Project: West Bank Park Refurbishment

Team Copenhagen proposed refurbishing the existing West Bank Park to make it a more holistic space that fits community needs. Students assessed the existing park and found that it lacks features that community members have asked for through survey data, including a dog park, a community pool, green space, and a community garden. Students proposed paving paths that are currently resident-worn dirt trails, constructing a fenced dog park, and improving visibility in the area through improved signage. Such improvements could foster a sense of community, improve public health, increase local tourism, and promote awareness of the park.

Recommendations

The students proposed the following recommendations to help implement their proposal and ensure long-term viability:

1. Improve infrastructure connections between off-street bicycle paths and adjacent corridors. River Road residents requested improved bicycle and pedestrian path connections in survey data. Improved connections between urban corridors and green spaces could promote community activity and increase visibility for parks like the West Bank Park.
2. Update information about park locations. Accurate information about park locations could improve community awareness of green spaces and encourage residents to take advantage of area green spaces.
3. Investigate other potentially underutilized park spaces. Increasing green spaces throughout the Eugene area through development of existing underutilized park spaces and brownfields could help fill the need for green spaces throughout the city.

TEAM CURITIBA

Project: Maynard Park Redevelopment

Team Curitiba proposed turning the existing Maynard Park into an ecological education center. The 2.94-acre lot would contain an apiary, passive and active recreation areas, a garden, and an ecological education center. The students' proposal addresses community needs by providing specialty facilities like dog parks, community gardens, and a community center, all of which the area currently lacks. Additionally, the project could help the city of Eugene meet its "Envision Eugene" goals.

Recommendations

The team proposed the following recommendations to ensure successful implementation of their proposal:

1. Implement a community garden in Maynard Park. A community garden could help combat food insecurity by providing healthy foods. The garden should utilize native plants to facilitate connections between residents and the local ecosystem.
2. Implement a community education center for community classes. The education center would offer several classes to the community, including cooking, zero-waste education, and community ecology classes. The education center could also partner with local schools to involve youth in healthy eating classes.
3. Install a water collection system in the garden. A rainwater collection system would help prevent erosion during heavy rains while redirecting water to the garden. This will help water the garden's plants while minimizing outside water needed to sustain the garden, reducing overall costs.

TEAM HELSINKI

Project: Redevelopment of Rasor Park

Team Helsinki proposed a redesign of a portion of Rasor Park to include a lending library, community education center, and a community garden. The redesigned park would also feature a van operating as a "mobile city hall," increasing community engagement and sustainability awareness. The team also addressed area issues such as food insecurity and community ownership of the area.

Recommendations

Students proposed the following recommendation to support their park redesign:

1. Continue developing vacant and underused spaces for public use. Continuing to increase public space in the Eugene/River Road region may help create a network of useful and engaging community spaces.
2. Encourage community members to engage with community spaces. By engaging with community spaces, residents could foster ownership and investment in their community. Members of the community could be compensated to maintain, promote, and assist in planning new spaces and programs.
3. Lower access barriers to community programs. This could include waiving fees for community programs like community gardens, classes, and other programs. Removing barriers may help improve community engagement, education, and involvement in relevant issues.

TEAM OSLO

Project: Placemaking in Maurie Jacobs Park

Team Oslo proposed improving placemaking elements at Maurie Jacobs Park through elements such as a wayfinding gate, redesigned path, and improvement of the park's existing features. The existing park lacks adequate signage, and student surveys found low attendance on sunny days when expected attendance was high. Students recommended solutions designed to increase park attendance and draw more community members to the park.

Recommendations

Students proposed the following recommendations to help improve Maurie Jacobs Park:

1. Install gate or entryway over Fir Lane at the entrance to the park. A well-designed entrance could improve wayfinding for the park while giving the park a distinct placemaking element. Local artists could be hired to help design the entry.
2. Redesign the park's parking lot. Sustainable travel modes like cycling and walking could be encouraged by redesigning the parking lot for better bicycle parking and pedestrian access. This could encourage residents to access the park via sustainable modes and provide better access for residents who do not own vehicles while decreasing the local carbon footprint. PeaceHealth Rides bike racks could be included as part of a network expansion.
3. Consider a seasonal attraction at the park. Seasonal attractions are an excellent means of attracting residents and tourist during off-peak times of the year. For example, native plants that bloom in spring could encourage people to view seasonal blooms.
4. Improve the existing play structure. The existing structure is minimal and underwhelming. An improved and expanded play structure could help make the park more family-friendly by providing children with a nicer, more robust outdoor play space.

Accessibility in River Road

Accessibility is a critical aspect of making neighborhoods more livable and sustainable. Neighborhood accessibility can be improved through walkability, or "the degree to which [a neighborhood] has safe, designated areas for people to walk or bike to work, dining, shopping and entertainment venues" (Charron, 2017). Walkability is crucial to improving the sense of community and safety within a neighborhood. Students found that an ideal "green city" includes precautions and regulations that reduce unfair and unsafe travel and construction. When researching the project, students visited the River Road neighborhood and photographed the sites of focus, and many experienced unsafe walking conditions. This lead to a focus on concepts and recommendations that improve walkability.

BENEFITS OF WALKABILITY

Increased walkability has been found to foster community, reduce carbon emissions, reduce obesity, and increase neighborhood land value. Students suggest that LTD participate in improving the walkability of heavily trafficked roads to the extent appropriate, for example, by extending bus routes along those busy roads, especially those without sidewalks. Because the River Road neighborhood is mostly reliant on car travel, implementing more bus stops within the neighborhood could increase safety for those who walk to their destinations. Additional bus routes could decrease the need for car travel, which would lower overall carbon emissions within the area.

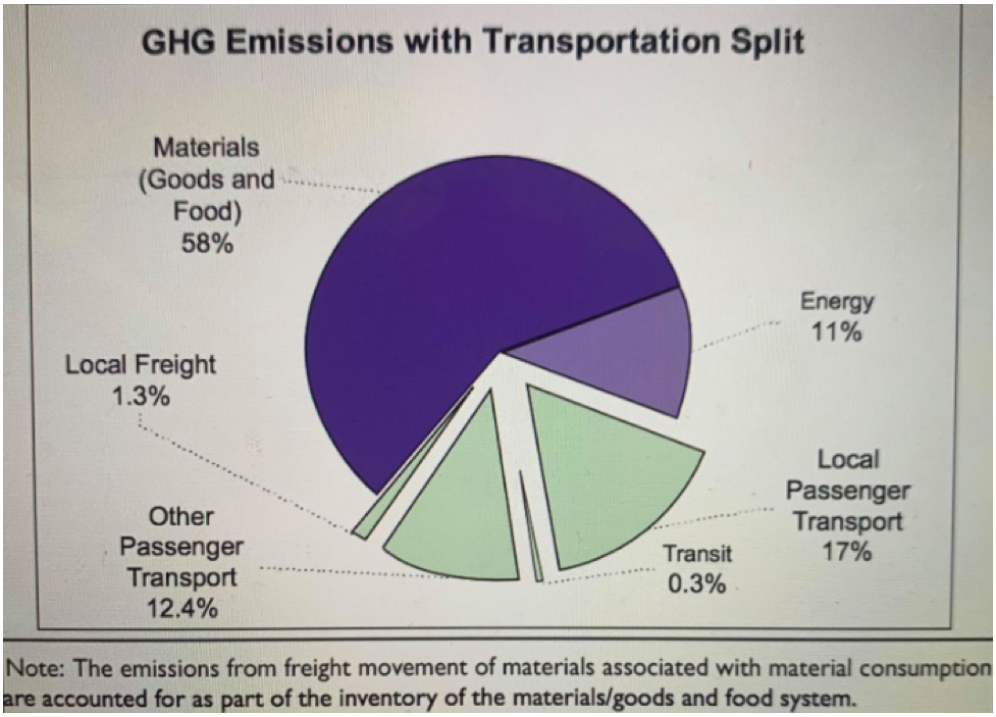


FIG. 1A

Figure 1A depicts the percentage of greenhouse gas emissions within Eugene and Springfield, Oregon. Overall, transportation accounts for 31% of emissions. However, within the transportation category, local passenger transport (meaning cars) accounts for over half of all transportation emissions.

IN LOVING MEMORY

In January 2019 , a 70-year-old woman died crossing the street at Irving Road and Hunsaker Lane after being hit by a car (The Register-Guard). Between 2008 and 2016, the City recorded 105 crashes at the same intersection where Irene Ferguson was killed (Glucklich, 2019). If buses were potentially implemented along these higher trafficked streets, residents living near River Road could choose to ride the bus instead of walking along unsafe roads to get to schools, homes, and public community spaces.

FIG. 1B

This figure depicts a popular road for travel near River Road. There is an LTD bus stop along the side of the road. If LTD were to create small platforms near their bus stops, people may feel safer waiting for the bus.

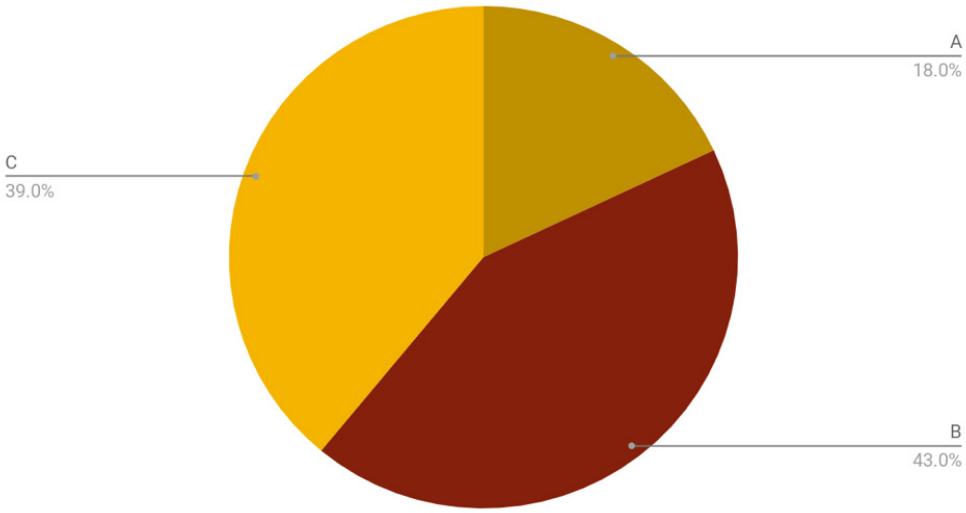
SURVEY RESULTS

Students reviewed River Road and Santa Clara neighborhood survey results to help guide choices for the area. The survey, conducted by Chelsea Harper, asked respondents what additions within the River Road area would make residents living there happier. The Neighborhood Priorities Report assigned results by different groups: by neighborhood, by communities of color, by low-income residents, and by disabled residents. The majority of responses called for safer walkability within the River Road area. The collective results among neighborhoods are as follows:

- 18% wanted to maintain current street design without sidewalks.
- 43% wanted streets with swales, a sidewalk on one side, street trees, and parking bays.
- 39% wanted streets with sidewalks on both sides, a curb and gutter system, on-street parking, piped stormwater, bicycle lanes, and street trees.

Overall Responses: Transportation

FIG. 1C



RESPONSE TO SURVEY RESULTS

One suggestion could be to add LTD bus routes along streets without sidewalks instead of building new sidewalks. Instead of walking to their destination, people could take the bus, especially during inclement weather. Buses can also transport bikes. In addition, constructing sidewalks along busy streets interrupts traffic flows; adding more bus routes would not require construction while having the additional benefit of employing bus drivers.

FIG. 1D

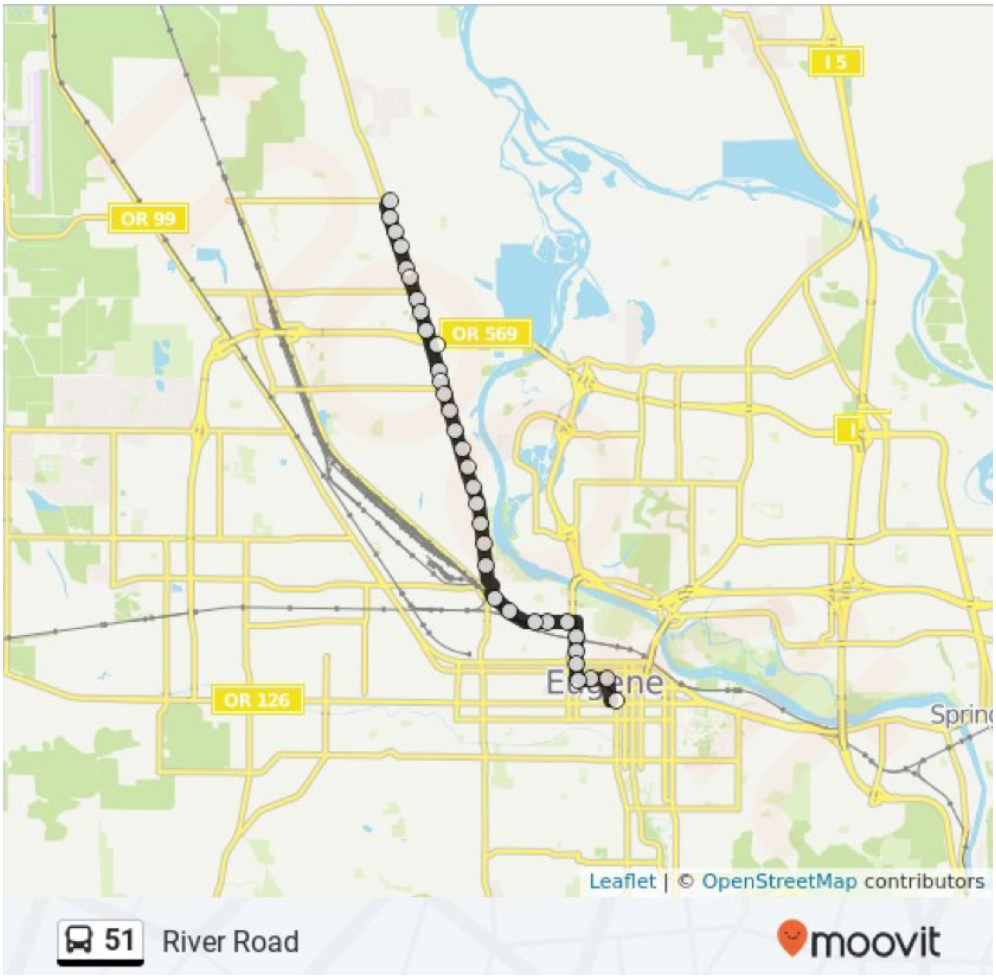


Figure 1D depicts the 51 River Road bus. This bus travels along River Road but does not travel on side streets and neighborhoods within the area.

FIG. 1E

Figure 1E depicts the 52 Irving bus. Like the 51 River Road, this bus travels along River Road until it reaches the Santa Clara neighborhood. Similarly, this bus does not travel into neighborhoods until it reaches Santa Clara, where it travels briefly along Irvington Drive before the route ends.

PROPOSED RIVER ROAD TRANSIT IDEAS

The two main buses that travel from the Eugene Station to River Road and Santa Clara run almost identical routes. If LTD were to consider expanding these routes inward from River Road, people living in these neighborhoods might be inclined to ride the bus. Furthermore, implementing more stops within these neighborhoods could increase safety and walkability for residents who do not own a car and travel via bicycle or walking.

Safe Bus Stops

Implementing low energy lights, cameras, and emergency call boxes near bus stops could increase safety at bus stops, which could increase travelers' safety but also encourage existing commuters to switch to LTD buses. Students studied these safety improvements in the context of gentrification. Due to rising housing prices, gentrification has become an issue in the Eugene area. Gentrification examines how improvements in urban areas force poor minority classes out of their homes as residents are unable to keep up with rising prices for housing. When this happens, homelessness may increase as well as the risk of sexual assault and robbery. Students chose to research increased safety for travelers.

A HISTORY OF TRANSPORTATION

The androcentric nature of public transit dates back to its creation as service primarily designed for men. "Safe Public Transit for Women and Girls" describes how early 20th century public transit systems were designed for men. Prior to women's suffrage, women were not expected to work outside the home unless they were with male family members. As a result, transit systems were designed with men in mind, and simultaneously became the primary way to navigate the city. These androcentric designs have often carried into modern transit systems.

The Problem

Students felt it was important to discuss women's safety because in order to create a system that is more sustainable, the system should be equitable. Student research shows that working women who take the bus to work sometimes walk through unsafe neighborhoods and wait at transit stops very early in the morning or very late at night. "Women and Transit Security: A New Look at an Old Issue" demonstrates that women are assumed to be less likely to retaliate against attackers and are "less costly for the attackers" if they do happen to fight back. This increases risk for women riding the bus. Safety should be taken into account on the bus as well as before boarding. Therefore, students believe that safety precautions should be implemented including eco-friendly lights, cameras, and emergency call boxes along LTD bus stops near River Road.

Student Reports: Transportation and Safety

In accordance with their background research on accessibility and transportation, some student teams proposed transportation-related recommendations for the River Road area. Student recommendations included protected bike lanes, improved crosswalks, and improved wayfinding elements. Students believe that transportation improvements could help improve accessibility in the River Road area by giving residents increased access to local resources including grocery stores, green spaces, and community amenities.

TEAM HOOD RIVER

Project: Protected Bike Lanes for River Road

Team Hood River proposed implementing a two-way protected bike path between Howard Avenue and Hillcrest Drive along River Road. The bike lanes could improve bicycle access along the River Road corridor, giving residents improved area accessibility through sustainable transportation. Additionally, this stretch of River Road lies between two well-used connections to the Riverfront Path, creating a more connected bicycle system for all community residents. Students proposed tactical urbanism solutions to include community members.

Recommendations

Students recommended the following to help support proposed bicycle system improvements:

1. Mandate protected bike lanes for high-speed streets. Streets with vehicle speeds at or exceeding 40 miles per hour should have protected bike lanes. Physical barriers between cyclists and vehicles create a safer cycling environment for cyclists. This would help expand Eugene's bicycle network.
2. Implement a tactical urbanism task force. Tactical urbanism utilizes short-term, cost-effective, and community-driven projects to advance long-term safety goals. Tactical urbanism could help incentivize community input and reclaim public space in communities like River Road.
3. Assess traffic data for non-auto fatalities to determine ideal "road diet" locations. This could help the City and Lane County determine which roads can be altered to reallocate more space for non-vehicular transportation modes.

TEAM KIGALI

Project: Pedestrian Safety and Community Engagement Along River Road

Team Kigali proposed an art installation consisting of artistically rendered crosswalks and an interactive pedestrian wayfinding tool. The installation would be located at the intersection of Hilliard Lane and River Road. Students believe the art installation would encourage residents to walk and use public transit while increasing pedestrian visibility. Students proposed a partnership between River Road Elementary School, the city of Eugene, Lane Transit District, and interested neighbors to help facilitate the project.

Recommendations

Students proposed the following recommendations to help support their proposed art installation:

1. Partner with local organizations to create the art installation. Local artists, schools, and nonprofit organizations can help contribute to the installation and create culturally and environmentally relevant work. Partnering with local organizations could also increase community engagement.
2. Ensure alternative transportation access along the River Road corridor. Provide Americans with Disabilities Act (ADA) accessibility by including audible wayfinding at the installation.

TEAM PORTLAND

Project: Riverbank Path Wayfinding Improvements

Team Portland proposed improving wayfinding systems throughout the River Road area. The improvements are tiered in structure, with each improvement building on the last. Ultimately, the improvements strive to create an easily navigable corridor that can be travelled without the assistance of digital maps. Wayfinding improvements could encourage increased use of non-vehicle transportation modes such as cycling and walking.

Recommendations

The team recommended the following to help implement an effective wayfinding system in the area:

1. Implement wayfinding maps to help identify connective pathways. Wayfinding maps can help community members navigate the corridor and connect to existing parks, open spaces, and amenities. Wayfinding maps could connect to public transit to help facilitate more transit connections.
2. Implement infographics along the West Bank Path. Infographics could help attract more users to the West Bank Path while establishing a stronger community identity. Infographics could depict geological, historical, and ecological facts about the Willamette River and the surrounding area. Infographics should be multilingual to accommodate diverse populations in the River Road area.
3. Expand safety precautions in the River Road corridor. Increased safety along the corridor would increase the sense of security for all users and help facilitate use by non-vehicle modes. Improvements could include lights at wayfinding signs, emergency call boxes, and increased police patrols along bike paths.

Conclusion

With the help of LTD, equitable sustainability within the River Road area is possible. Students researched walkability, green spaces, and park and safety improvements that could be implemented in the River Road area. Through literature reviews, op-ed pieces, survey analyses, and site visits, students developed several recommendations for LTD. Increasing transit ridership, improving user experience, and adding bus routes could give residents greater access to the community. Providing connections to green spaces can improve community health and wellbeing while further incentivizing transit ridership. Increased stop safety could also incentivize more ridership, particularly among vulnerable populations.

Students also provided transit-adjacent or non-transit related recommendations to help improve the River Road community. Student teams suggested interventions for existing parks as well as undeveloped park land to ensure accessibility, increase usage, and help navigate to and within the area. Teams also proposed community gardens, apiaries, and educational programs to give residents access to new skills while fostering a sense of community. Finally, some teams proposed increased transportation access such as increased bicycle paths, improved pedestrian access, and added bike-share opportunities to help improve accessibility and decrease reliance on personal vehicles.

Students believe that if implemented, the walkability, green spaces, and safety designs they have proposed can lead to increased transit ridership and resident satisfaction in the River Road area. With LTD's help, the ecological future of the Eugene community can be re-imagined to be more livable, sustainable, and just in the near future.

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