Connecting Communities

Recommendations for Micromobility and Transit Integration

Spring 2025

PPPM 438
Bicycle
Transportation

Cove Gallagher and Maxwell Larkby
Report Authors • School of Planning, Public Policy and Management

Robert Binder
Visiting Assistant Professor • School of Planning, Public Policy and Management

COLLEGE OF DESIGN

UNIVERSITY OF OREGON

LTD

SCI Sustainable Cities Institute

SCYP Sustainable City Year Program

Acknowledgements

The writers would like to thank participating LTD staff and affiliated speakers for offering support and resources integral to the completion of this report:

- Brandon Melton, AICP, Development Services & Senior Development Planner
- Dave Roth, Director of Mobility Planning and Policy
- Brodie Hylton, Executive Director, Cascadia Mobility
- Tiffany Edwards, Vice President of Policy & Community Development, Eugene Area Chamber of Commerce
- Earl Blumenaur, Former US Congressman
- Nick Meltzer, Senior Engineer/Planner. Kittelson & Associates, Inc.
- Josh Kashinsky, Associate Transportation Planner, Lane Council of Governments
- Eugene, Springfield, and Central Lane Metropoltian Planning Organization (MPO) Staff

Contents

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 yearlong 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.

Community partnerships are possible in part due to support from U.S. Senators Ron Wyden and Jeff Merkley, as well as former Congressman Peter DeFazio, who secured federal funding for SCYP through Congressionally Directed Spending.

About Lane Transit District

Lane Transit District (LTD) is a special district of the State of Oregon led by a seven-member volunteer board of directors appointed by Oregon's governor. LTD's budget is funded through a combination of fares, taxes paid by local employers and employees, and from state and federal sources. LTD lives its mission to connect our community by delivering more than six million annual passenger boardings from 30-fixed bus routes and two EmX Bus Rapid Transit lines. LTD's paratransit service, RideSource, provides more than 360,000 trips annually for people with disabilities and Medicaid recipients.

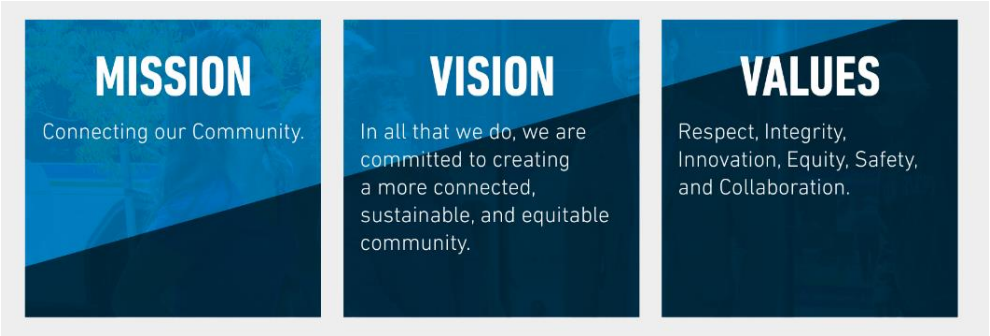


Image credit: Lane Transit District

Course Participants

The following graduate and undergraduate students enrolled in PPPM Bicycle Transportation contributed to the research and completion of this report.

Graduate Student

Corey Cullen

Undergraduate Students

Josie Alberts
Mohammed Alzaben
Justin Begley
Easton Brandt
Cat Colson
Issac Coltman
Seb Daniels
Owen Dean
Claire Douglas
Emma Fitzpatrick
Cove Gallagher
Marlon Harris
Hanna Hedley
Finn Horan
Nick Kane
Asher Krauel
Anna Krueger
Laif Kvarsten
Maxwell Larkby
Anna Leacock
Dustin Levi
Izzie Marshall
Norah Murry
Ariana Nyxi
Kate Petersen
Cameron Phillips
Sam Plager
Lucien Poncet
Dyllon Prevost-valik
Arianna Reed
Jake Schwindt
Avi Thaler
Maia Thomas
Liam Weir
Abby Wessels
Thomas Westbrook
Dean Wysocki
Alyssa Zabac

Course Description

PPPM 438: Bicycle Transportation

Bicycle Transportation (PPPM 438) explores the various elements involved in planning and advocating for increased utilization of bicycles as a form of urban transportation. The class focuses on five key areas: policy and planning, mapping, street design, community engagement, and access.

Executive Summary

To improve the connection between active and public transportation in Lane County, the Bicycle Transportation class partnered with Lane Transit District (LTD) and Cascadia Mobility to produce comprehensive street redesigns, GIS mapping and implementation recommendations, and community outreach findings. Through the lens of street design, geographic mapping, policymaking, and community engagement, students provided a basis for LTD to transform the transportation system in Eugene-Springfield and the broader Lane County area by connecting multimodal transportation options.

Students assessed current infrastructure gaps, community beliefs and needs, and the politics of redesigning streets to accommodate multimodal transportation in the region. By impacting the physical, cultural, and systemic environments, students believe LTD could further connect their service to bike infrastructure. For example, mapping studies identified gaps in bikeshare service while community engagement recorded community members' feelings and needs surrounding bikeshare and infrastructure. Students also used policy studies alongside street redesigns to identify areas with the greatest street improvement needs, generating proposals to encourage future infrastructure improvements. In addition, one group looked at the existing transit system through an equity and access lens and advocated for prioritizing marginalized neighborhoods in transportation planning and addressing network barriers for people with disabilities.

Introduction

With deep roots in the Eugene-Springfield cycling and transportation communities, LTD, and Cascadia Mobility—the area's longtime bikeshare provider—looked to advance the shared goals of transportation equity, efficiency, and improvement.

Working with spring term Bicycle Transportation students, LTD and Cascadia Mobility sought creative policy recommendations to connect active and public transportation services and bicycle infrastructure. As both organizations strive to ensure mobility throughout Lane County, developing improved cycling connections helps meet their goal of providing equitable and accessible transportation. The purpose of this report is to synthesize and present student research and findings to strengthen LTD's community ties and multimodal resources. Students worked in the field to assess current infrastructure, observe areas of need, and collaborate across sub-disciplines including street design, GIS/mapping, policy, and community engagement.

Cascadia Mobility is an independent 501(c)(3) nonprofit based in Eugene, Oregon, established in 2020. It plays a vital role in Eugene's transportation system by operating as a mission-driven, hyper-local micro-transit agency. Their core mission is to increase access to equitable, active, and shared transportation in smaller cities across the Pacific Northwest, most notably in Eugene and Springfield, Oregon. They operate a fleet of approximately 450 PeaceHealth Rides bikes, all of which are currently pedal-operated or human-powered, but Cascadia Mobility staff are actively evaluating fleet electrification in hopes to eventually offer electric bikeshare. Currently, PeaceHealth Rides bikes offer practical and affordable transportation for students and community members, and their popularity has boomed in recent years among these groups. LTD is helping fund Cascadia Mobility's service expansion into Springfield and has shown interest in future partnerships to better integrate bikeshare into LTD's Long-Range Mobility Plan (Connect 2045).

Figure 1: Professor Binder's PPPM 438 Bicycle Transportation class visits the Cascadia Mobility Headquarters to get a behind the scenes look at the nonprofit responsible for bikeshare in Eugene.

Image credit: Robert Binder

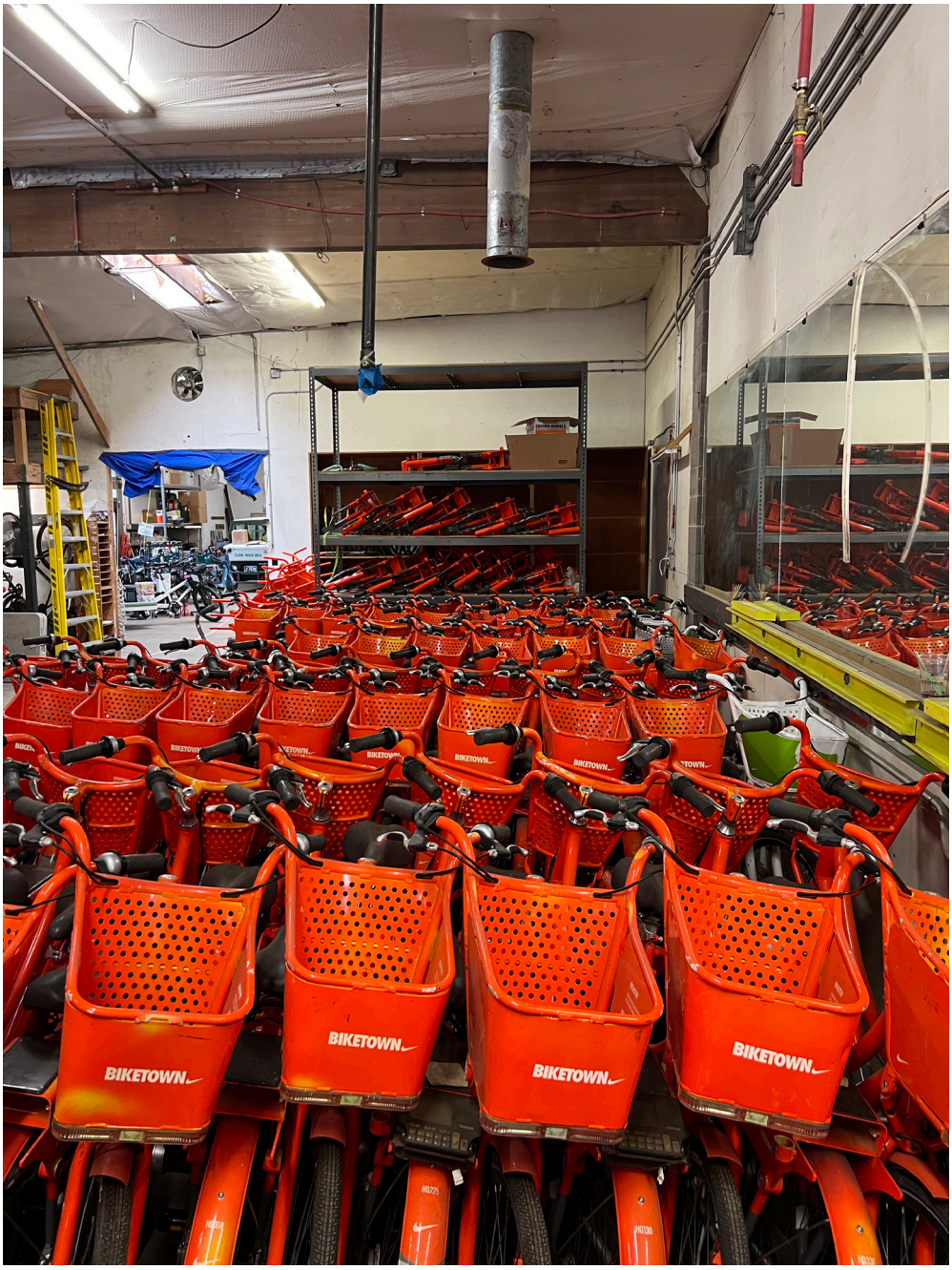


Figure 2: A fleet of retired pedal-bikes from Nike's Beaverton branch of its Biketown program. These bikes are overhauled in-house and repurposed into the teal-colored PeaceHealth Rides bikes seen around Eugene and Springfield.

Image credit: Robert Binder

As LTD embarks on the Connect 2045 planning process to improve connectivity between mobility services, bikeshare, and transit, student policy proposals, assessments, and community engagement findings substantiate LTD's commitments.

Additionally, this project improved students' abilities to synthesize information, think critically, and operate professionally within the boundaries of an interconnected system of local governments, interest groups, and public agencies.

Focus Areas

The students' primary goal was to address issues of bicycle transportation to help make Eugene-Springfield and the greater Lane County area become more interconnected, less car-dependent, and develop as a region renowned for its accessibility and multimodal transportation access. Students provided a detailed analysis on the selected topic, with each topic focused on either policy and mapping, street design and safety, the community engagement aspects of bicycle transportation, or equity and access in transportation planning. Students worked in a variety of fields and produced varying information from surveys, mapping, discussions, and site-visits.

The goals and outcomes of each focus area included:

Policy

- Research the political landscape and impact to transportation outcomes within Lane County and the Eugene-Springfield metro area
- Utilize comparison to other cities/areas actions relating to bicycle planning and relate outcomes to Lane County

Mapping

- Spatially examine gaps in bikeshare and bus infrastructure to find suitable locations for the expansion of multi-modal transit options
- Select sites based on specific evaluation criteria
- Provide implementation considerations and recommendations

Street Design & Safety

- Conduct research on existing bike infrastructure and determine areas which could be improved by street redesigns
- Utilize 3D Street, Streetmix, and artistic software to create renderings of redesigned streets
- Assess the benefits of redesigning streets and determine the impacts on the greater transportation landscape

Community Engagement

- Plan and host interactive activities at public events that collect input on the posters/designs/plans created by each group
- Conduct interviews with stakeholders to build an understanding of the political landscape and potential community partners (e.g., LiveMove, Cascadia Mobility, local advocates)
- Prepare a brief political/partnership memo to support long-term collaboration efforts

Accessibility, Equity, and Inclusion

- Identify ways to make Eugene and Springfield's bike infrastructure more accessible for people with disabilities and underserved communities
- Explore improvements like wider bike lanes, adaptive bike parking, and more inclusive bikeshare options
- Connect with local disability advocates and community groups to help shape inclusive, community-informed solutions

Policy

Policy Objective

Utilize mapping tools and research comparable communities to assess policy barriers and solutions to increase the interconnectivity between bikeshare, cycling, and LTD services within and between Eugene and Springfield.

Methods

To address these objectives, students identified key stakeholders in both Eugene and Springfield including politicians, transportation planners, and policy analysts. Students then emailed the identified stakeholders asking them to conduct 30-minute interviews. The interview questions were written to help address the aforementioned objectives. After conducting four interviews, students compared and analyzed the differences in both Eugene and Springfield, resulting in recommendations for LTD and Cascadia Mobility.

Figure 3: The addition of protected bike lanes has overwhelmingly increased how often residents ride on them.

	MORE OFTEN	ABOUT THE SAME	LESS OFTEN	I NOW AVOID THIS STREET	N/A	TOTAL
Alder Street	41.08% 244	35.35% 210	0.34% 2	2.02% 12	21.21% 126	594
8th Avenue	34.18% 201	28.57% 168	2.04% 12	4.76% 28	30.44% 179	588
13th Avenue	56.33% 338	20.50% 123	3.50% 21	9.33% 56	10.33% 62	600
High Street	62.27% 378	19.77% 120	4.61% 28	5.77% 35	7.58% 46	607
East Amazon	43.10% 256	32.66% 194	0.51% 3	1.52% 9	22.22% 132	594

Findings and Recommendations

Eugene

One interview was conducted with a senior traffic engineer from the City of Eugene. The key takeaway is that the city believes it is making meaningful progress in expanding bicycle infrastructure. However, these efforts are approached strategically, with careful consideration of broader community needs. As a result, the city may be cautious about pursuing major lane reconfigurations or traffic changes that could significantly impact the driving constituency. It was the interviewee's belief that Eugene is held back in achieving its goals by inefficient land use and governance hurdles. While these challenges can hinder progress, an incremental approach and gradual shift can reduce the shock of new bike-centric infrastructure and allow citizens time to consider the mode of transit that best suits their needs.

Students held a separate interview with a climate policy analyst for the City of Eugene whose primary responsibilities include implementing Eugene's Climate Action Plan and collaborating with the city council and community to help reach their sustainability goals. A large portion of the interview weighed upon the importance of the ability for infrastructure usability into the future, and the belief that investing in safer, more accessible transit options such as bike lanes and public transit will drive behavioral changes needed to culturally shift away from car-dependency in transit.

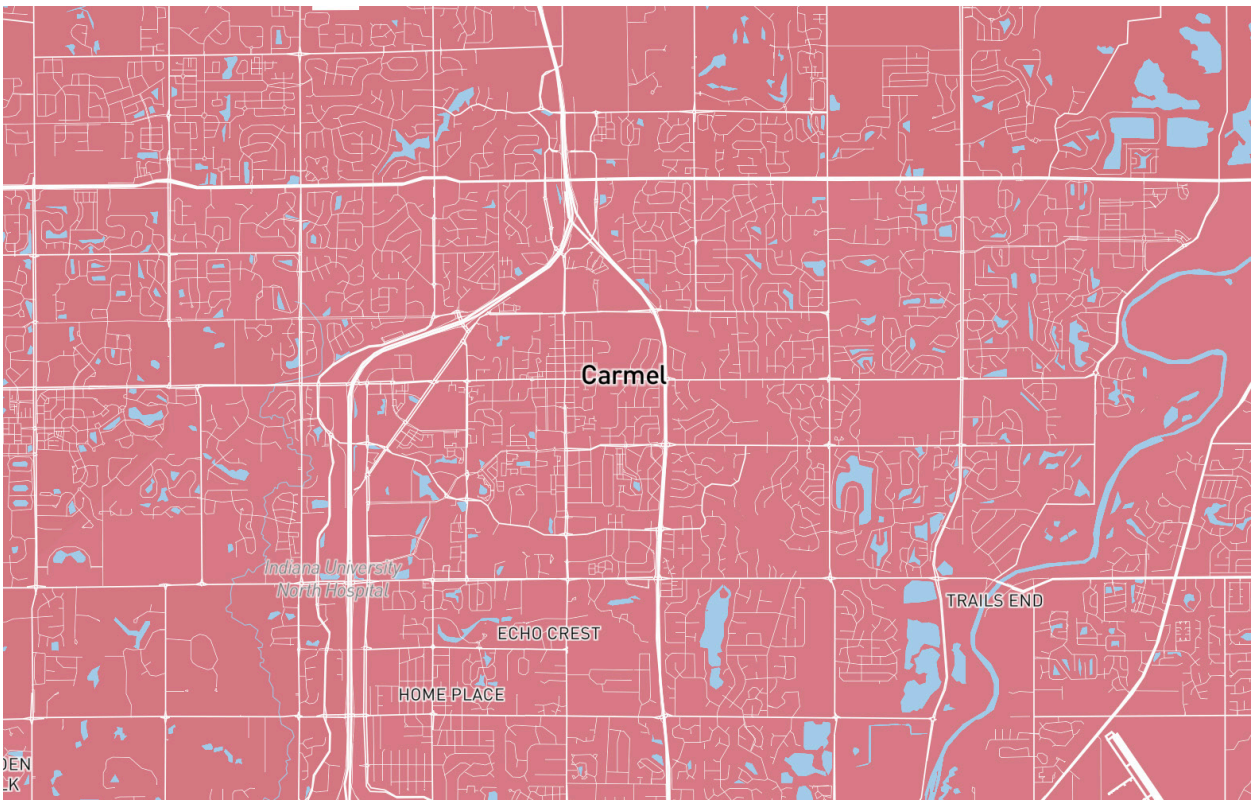
Springfield

The students' final interview was with a transportation planner and an engineer from the City of Springfield. They discussed how Springfield's progress toward improved bicycle infrastructure is hindered by a combination of a lack of funding, a lack of prioritization, and a sparse planning staff. The interviewees highlighted the recreational cycling paths that are beautiful and lesser known in the city when asked about Springfield's existing bike infrastructure. While Springfield has an extensive network of recreational paths, especially along the Willamette River, it lacks a commuter-oriented system of bike lanes through the center of the city. At present, the projects that could improve this vital type of bike infrastructure are not low-hanging fruit, and would require extensive funding, design, and political approval to make it possible. Most of the short-term headway Springfield could make through tactical urbanism has already been made, and making more important improvements would require resources that are not readily available. Furthermore, the political climate of Springfield could make it so that they are hesitant to publicize existing bicycle infrastructure and the benefits it has provided the community, making it so that people are not aware of the good those changes have made and are not pushing for more.

Comparable Communities

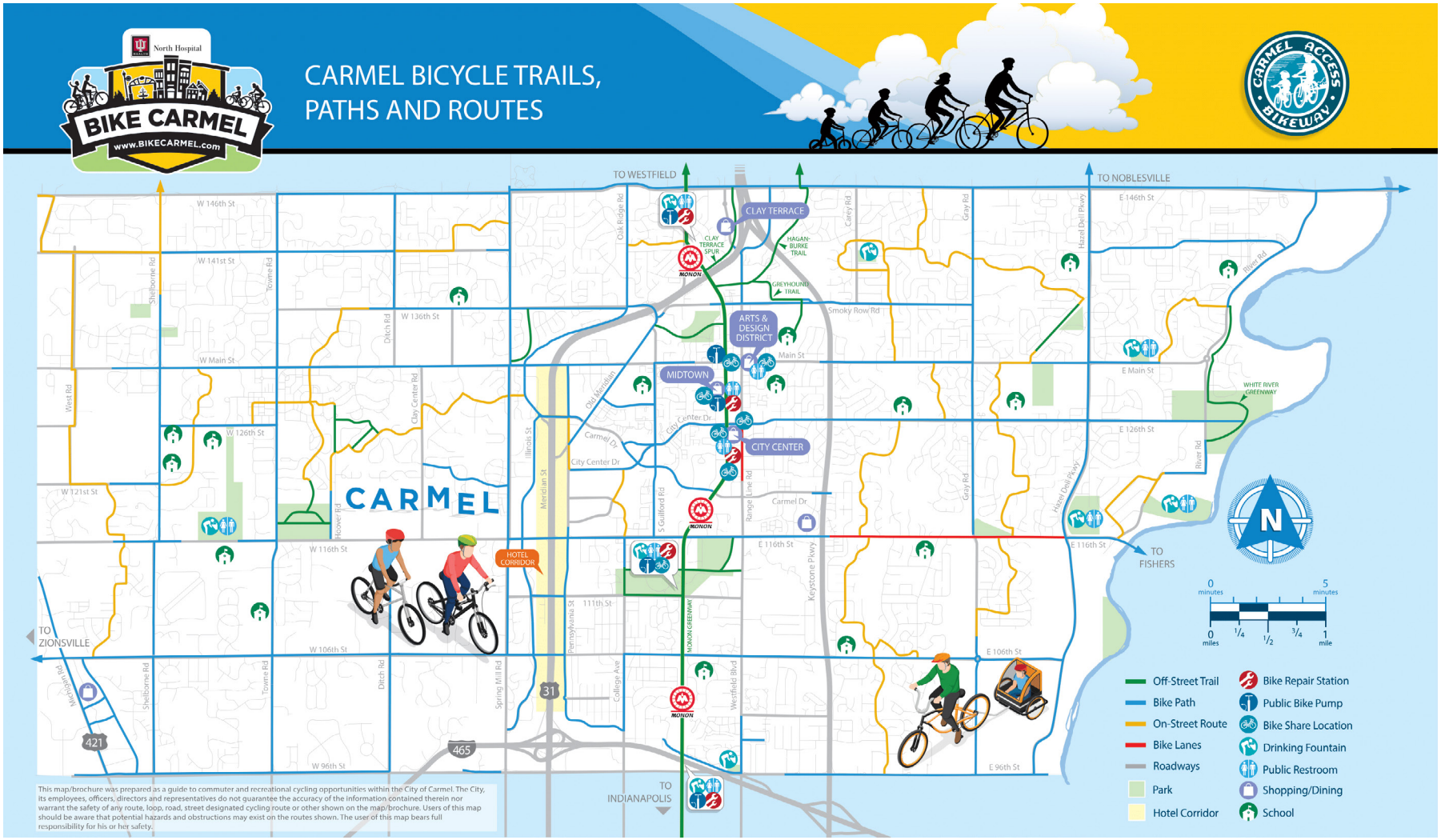
Overall, students determined that the formula that led to the current bike experience in Eugene would not necessarily work in Springfield due to socioeconomic and cultural differences. Instead, students identified a city similar to Springfield; one in which biking and bike infrastructure proliferated despite a more conservative demographic: Carmel, Indiana.

Figure 4: A political map of Carmel, Indiana. (Bestneighborhood.com)



Carmel has a population of just over 100,000 and lies in a historically Republican district. Students looked for reasons that allowed Carmel to make a cultural shift to being a pro-bike community and found that the city gained its success by pushing the narrative that cycling makes economic sense for bikers and the surrounding community. The City of Carmel has been incrementally building upon its existing recreational trails through new commuter-centric infrastructure and bike-to-work community engagement initiatives. Placing special emphasis on the economic and health benefits of biking and moving gradually way away from a network focused solely on recreational trails is a strategy that the City of Springfield, Cascadia Mobility, and LTD could adopt in working toward a cultural shift where bike commuting is seen as a viable alternative to driving.

Figure 5: Existing bike infrastructure in Carmel, Indiana. (carmel.in.gov)



Mapping

Policy Objective

Mapping groups focused on spatial mapping and utilized existing spatial data depicting current LTD and PeaceHealth Rides services, bike infrastructure, local parks, libraries, schools, and low-income housing developments. They were tasked with using this data to design recommendations that could increase transportation connectivity and mobility.

Methods

Students began by creating an existing conditions map in ArcGIS and used it to develop evaluation criteria regarding bikeshare and transit integration. Once these criteria were set, students selected sites for bikeshare using buffers (e.g., within 0.5 miles of a bus stop and 0.25 miles of a bike route). These buffers served to identify underserved areas in the existing bikeshare system and to provide a recommendation for potential PeaceHealth Rides expansion in years to come, or in the short term, with funding assistance from LTD, like the partnership in Springfield. One group created an ArcGIS story map with expansion recommendations specific to West Eugene and the East Bank Path; another group made a series of maps that look more holistically at the service area.

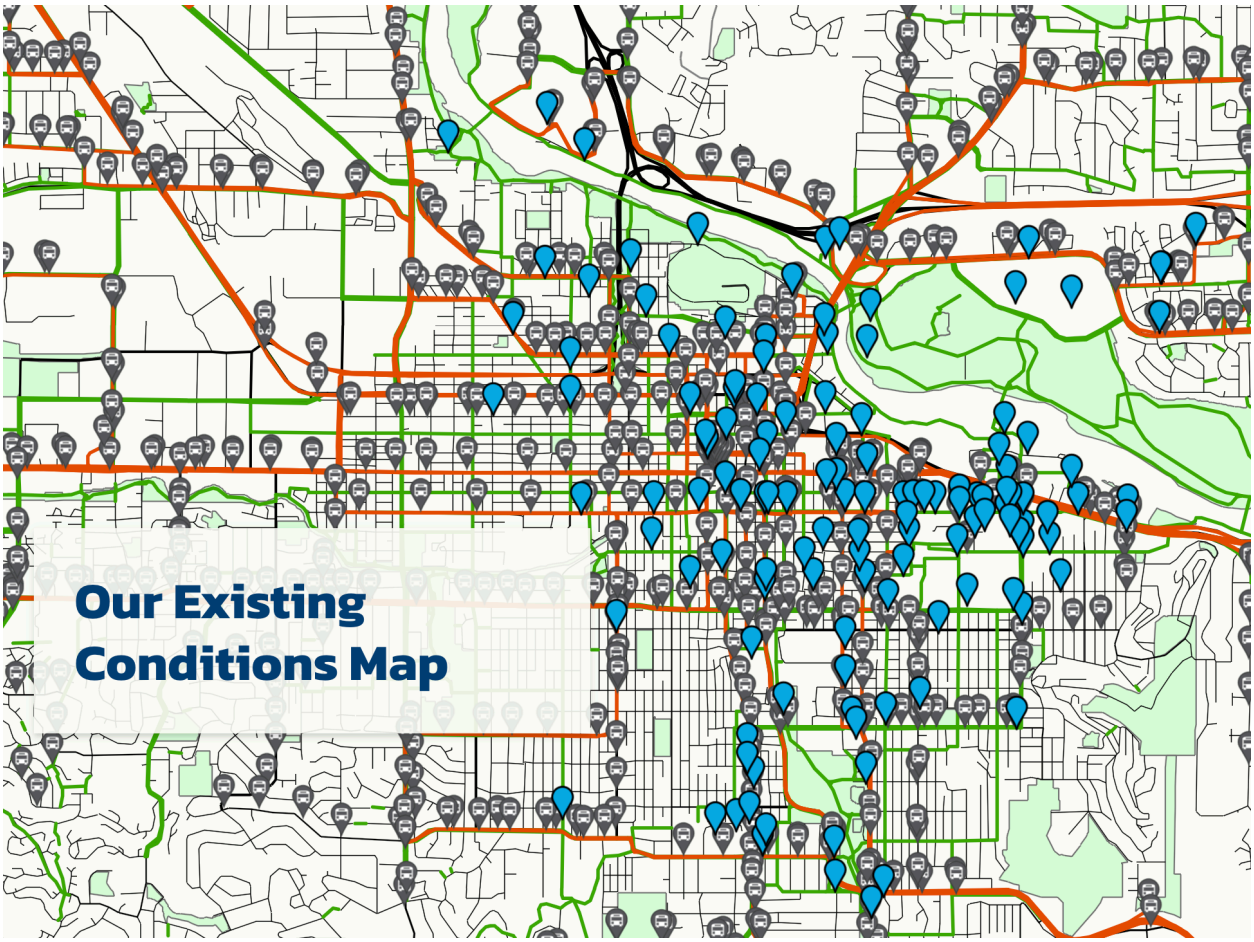
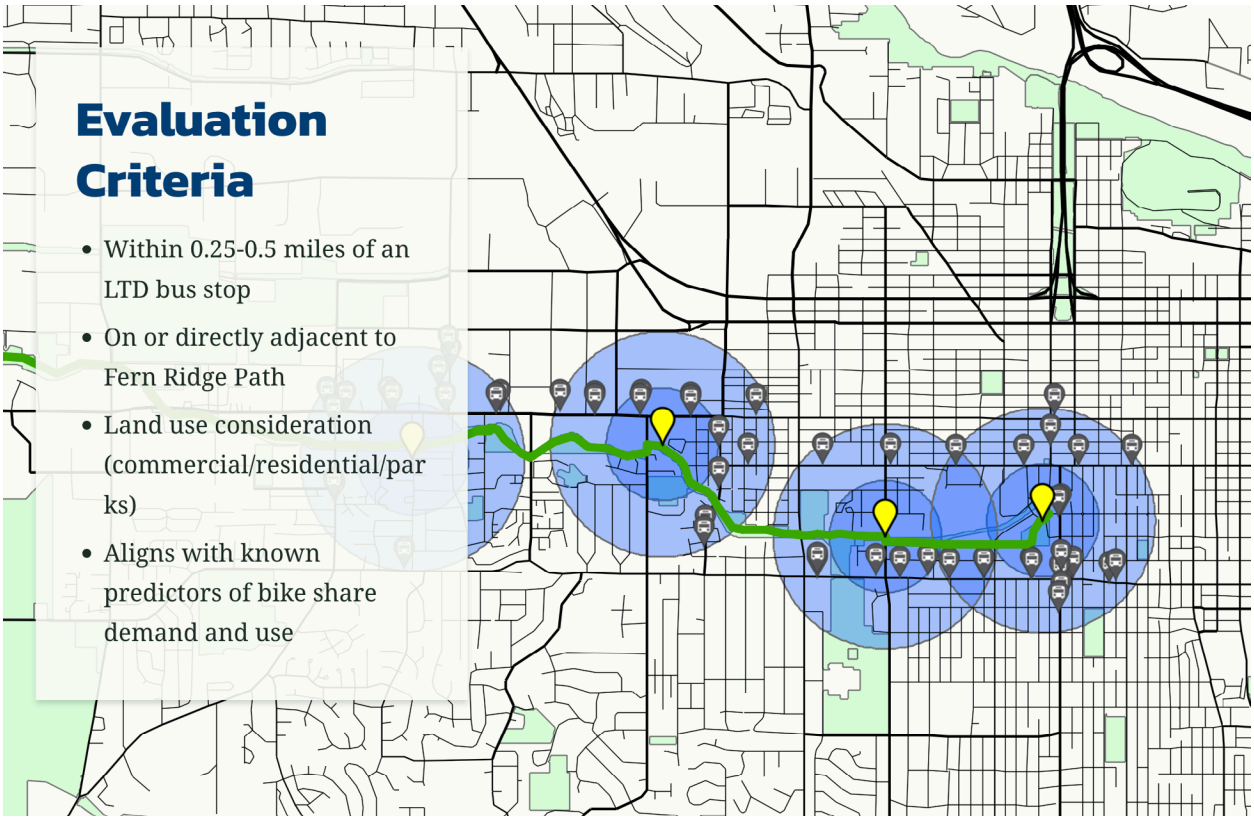


Figure 6: Map of current PeaceHealth Rides hubs (shown in blue), green bikeways, and existing LTD infrastructure (lines shown in red).

Figure 7: Mapping Group 1's evaluation criteria for optimal bikeshare sites.



Findings and Recommendations

During an interview with the operations director of Cascadia Mobility, students gained a behind-the-scenes understanding of how bikeshare hub sites are chosen. Cascadia Mobility is beginning to focus more on hubs within neighborhoods and near student and low-income housing, rather than "destination" hubs at popular attractions. Students proposed the continued use of infill hub siting, a method that involves short-distance hub location changes—sometimes as simple as moving a hub across the street—based on predicted demand. Infill is a very cost-effective and sound strategy for increasing ridership when bikes and funding are more limited. Student research identified an untapped potential for expanding access along the Fern Ridge path in Eugene. It weaves through dense housing developments and is rarely more than a few blocks from a commercially zoned area. Hubs along the path would strike a balance between destination and residential hubs, further opening this major bike artery to commuters, recreational riders, and students.

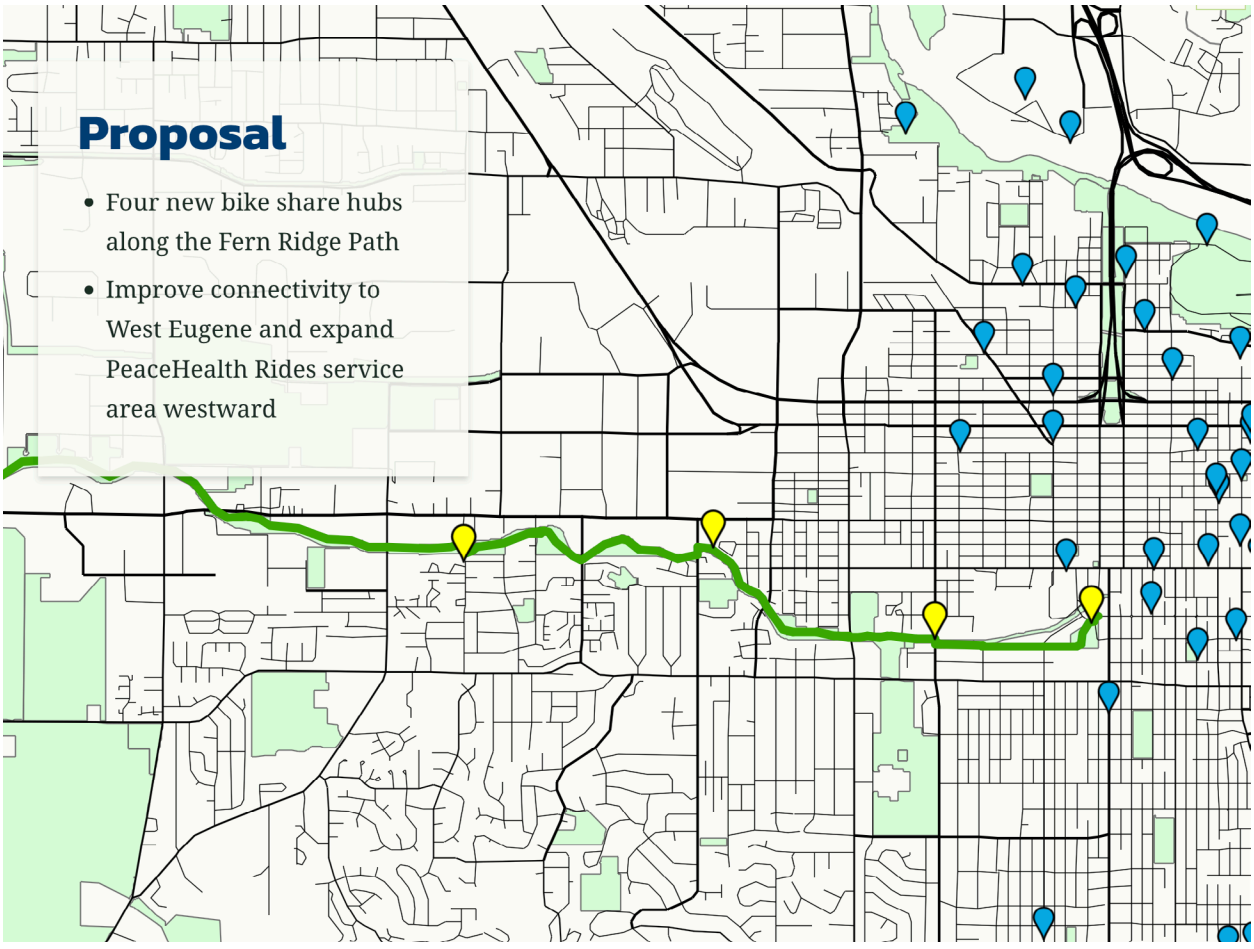


Figure 8: Proposed locations for a PeaceHealth Rides Fern Ridge Reservoir expansion into West Eugene.

One mapping group recommended four new hubs along the Fern Ridge Path.

Hub 1: Located at Quaker Street and West 13th Avenue, this hub increases access to Food for Lane County (within a 15-minute walk or 5-minute bike ride), Market Place West, the Seneca EmX station, and Quaker Street, a popular bike route.

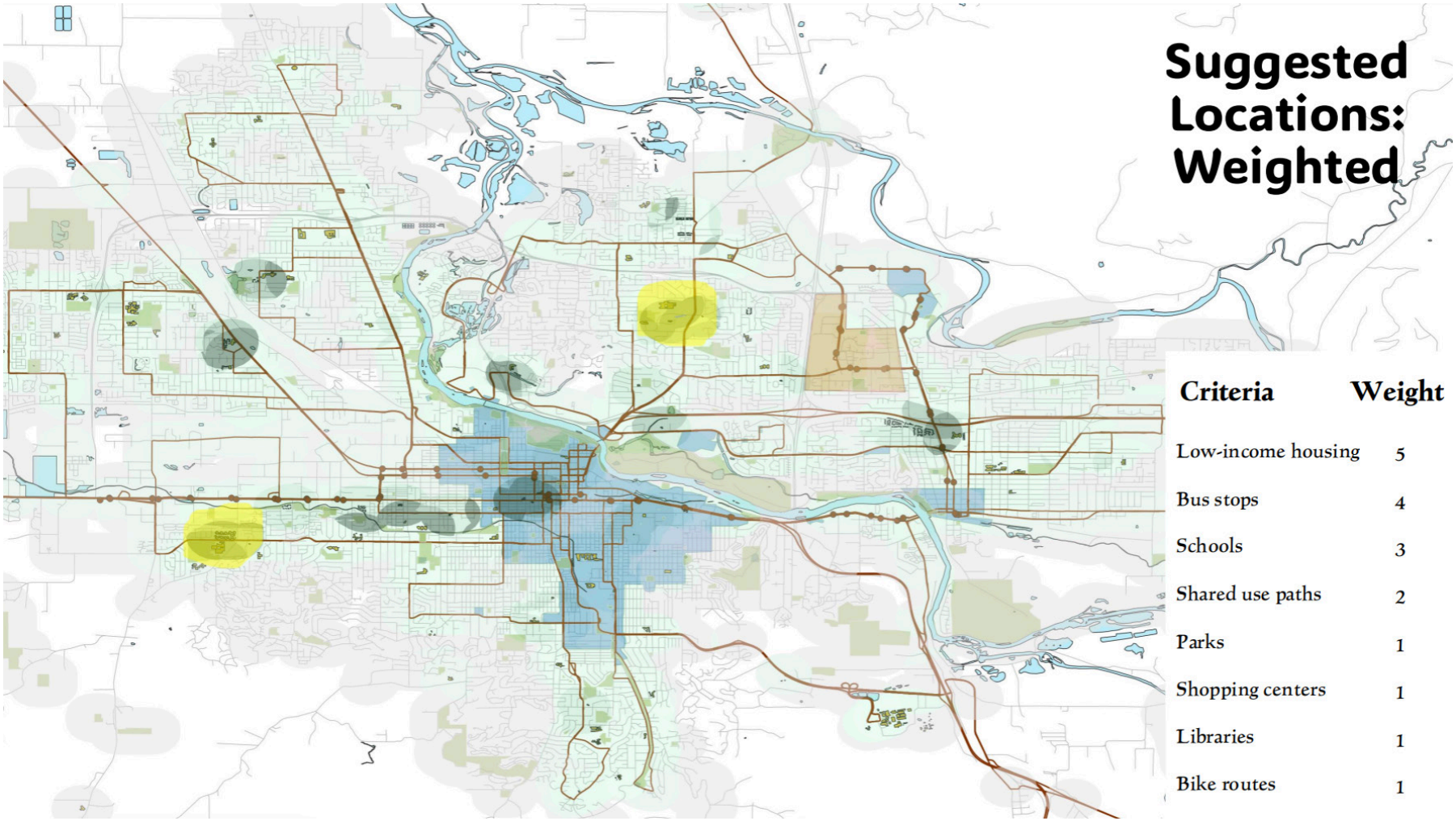
Hub 2: This hub is located on West 12th Avenue next to Firwood Apartments, a low-income housing complex. It is at the end of the West 12th Avenue bikeway, the first bikeway connecting to the Fern Ridge Path south of West 11th Avenue.

Hub 3: This hub is located at Polk Street and the Fern Ridge Path, near medium-density housing and several LTD routes (West 18th Avenue and West 13th Avenue). A PeaceHealth Rides virtual hub in the southwest area of Westmoreland Park, currently isolated, will be connected via Hub 3 and the Fern Ridge Path expansion.

Hub 4: Located closest to the existing service area, this hub is on West 15th Avenue, north of Jefferson Park and southeast of the Lane Events Center. It serves as the eastern terminal, linking the Fern Ridge Path to the broader system. These hubs align with the mapping group's criteria for exemplary system expansion.

The second mapping group's goals were maximizing accessibility throughout Eugene, providing better connections between the EmX system and popular locations, and creating a spatial reference map for stakeholders to use in determining where to expand their services. The students used features within QGIS, including quarter-mile buffers for walkability, heat maps for site selection, and weighted scoring to prioritize proximity to housing and bus stations. Students then tied together their recommendations with a combined analysis of these criteria to reveal optimal hub locations.

Figure 9: Shown in yellow are hotspot locations where PeaceHealth Rides and LTD integration would be most impactful based on weighted evaluation criteria.



The two hotspot locations are the Churchill and Sheldon High School neighborhoods. In the Churchill area, LTD runs only one route along 18th Avenue with inadequate hourly service at night and on weekends. Bikeshare integration in this area could provide an additional transit option and connect Churchill High School with commerce on West 11th Avenue. In the Sheldon area, bikeshare could connect Ascot Park, Sheldon High School, and the Sheldon Community Center with nearby dense housing.

Although the sheer number of bikes, hubs, and funding for staff overhead is currently limited, a partnership with LTD could allow for a purposeful and impactful expansion of the service area. This partnership-driven expansion would connect underserved communities to the greater Eugene-Springfield bike network, providing greater access to recreation, bike commuting, and the combined use of both bikeshare and LTD's bus services to get around.

Figure 10: Eugene's Churchill High School neighborhood, which lies in close proximity to the Fern Ridge Path and the West 11th Avenue EmX route.

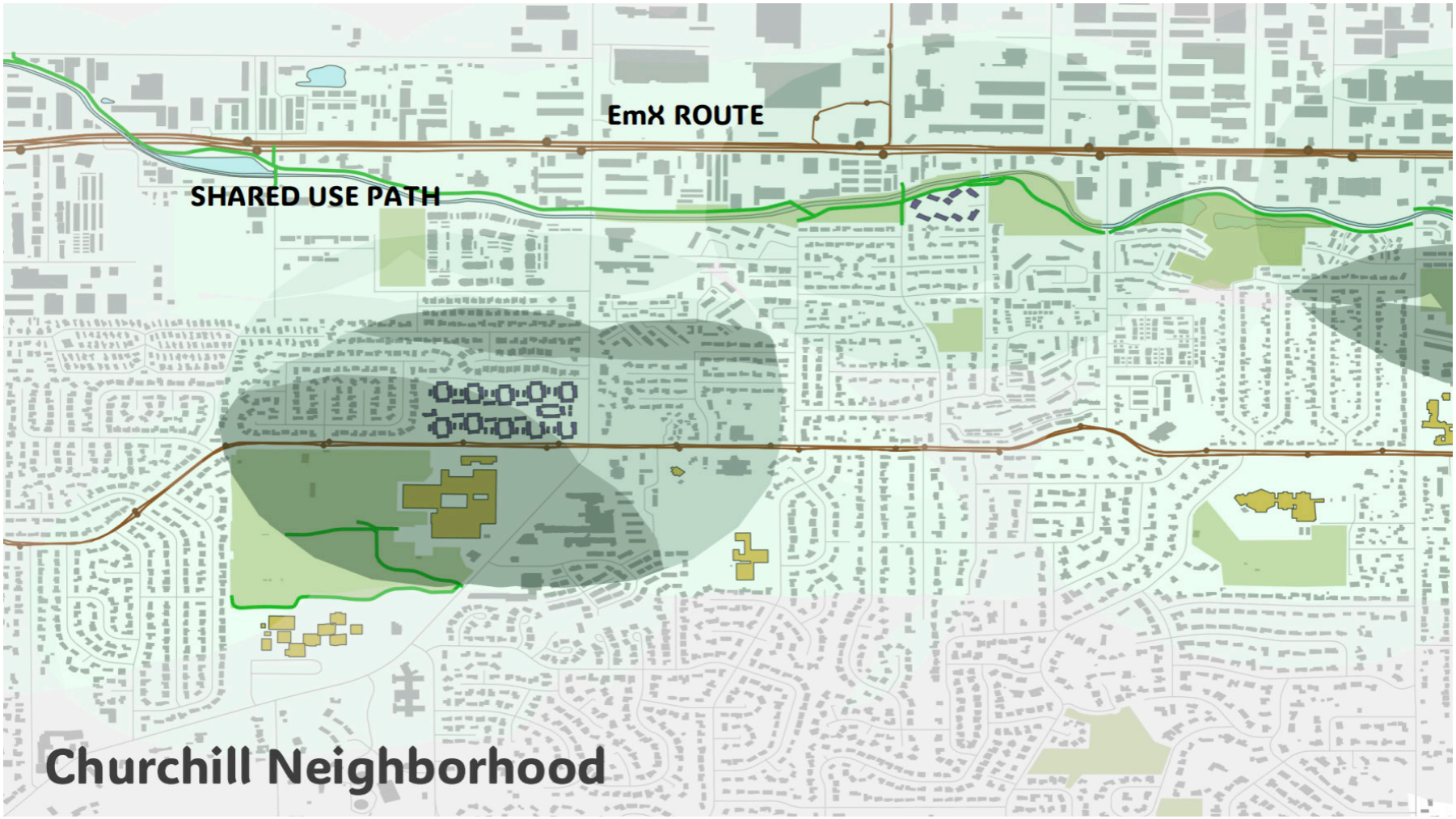
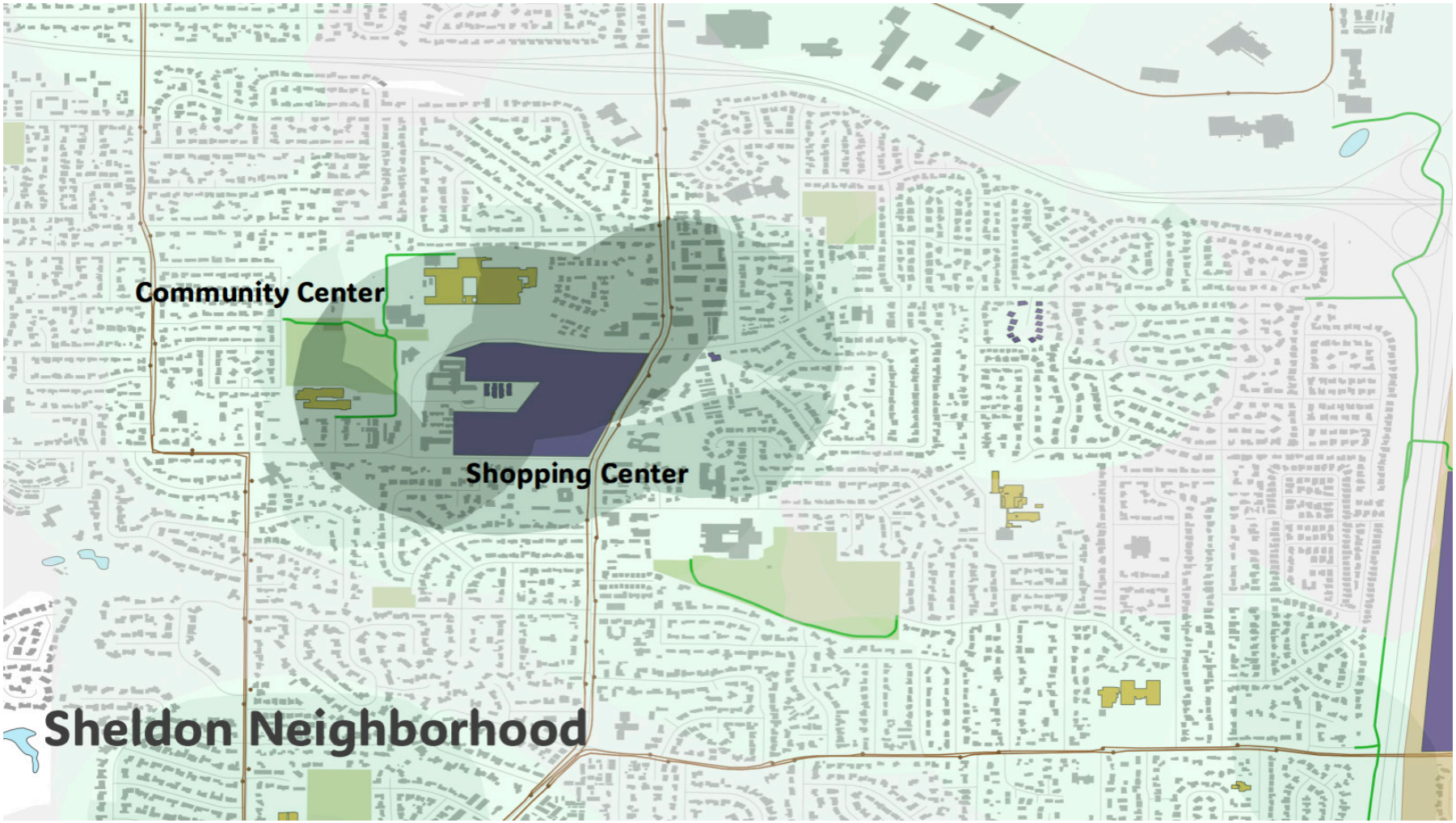


Figure 10: Eugene's Sheldon High School neighborhood.



Street Design and Safety

Policy Objective

Connect LTDs services to bike infrastructure through improving essential bike routes.

Methods

Upon analysis, students identified three important areas of consideration in selecting streets for redesign:

- Infrastructure gaps
- Connection to locations of interest
- Importance to greater transportation network

Each area of consideration highlights the exigence to Eugene-Springfield's current transportation portfolio. Thus, this research encompasses a multitude of streets maintaining different typologies and impacts on the specific area it is located within. With the goal of ensuring connections between bike routes are fluid and secure, students emphasized filling infrastructure gaps within Eugene-Springfield's bike infrastructure. Additionally, the presence of areas of interest in the community such as commercial hubs, schools, jobs centers, and transit lines was an important factor in decisions regarding which streets to examine. Streets passing through such areas were often selected above others as their inclusion within the greater bike network would not only improve connectivity but allow residents to reach locations of interest. This method may also lead to increased economic activity along selected roads, improve transit ridership, and encourage the addition of bikeshare facilities to intermix with the added infrastructure development. In selecting sites for improvement, students also considered benefits to the greater transportation network. Linkages to public transit and bikeshare systems would be improved significantly with developed bicycle infrastructure, which aids in developing Eugene-Springfield's transportation system with greater mobility and reduced car-dependence.

Using the aforementioned criteria, four streets were identified for redesign. Each is a distinct typology with importance to Eugene-Springfield's greater transportation network and maintains varying levels of traffic volumes and current bicycle infrastructure. The selected streets and specific segments identified for redesign are:

1. Main Street and South A Street (Mill Street → 14th Street, Springfield)
2. 42nd Street (Main Street → Marcola Road, Springfield)
3. Patterson Street (East Broadway → East 13th Avenue, Eugene)
4. Charnelton Station (Charnelton Street Southbound Stop, Eugene)

The following sections conduct a problem analysis and existing conditions discussion for each street. Images of the street pre-redesign are provided with justification for their selection. Lastly, the proposed redesign is depicted by images from StreetMix, 3Dstreet, and graphics created in Adobe Illustrator. Each street was designed with the same criteria, though due to collaboration and variation in the complexities of some designs, many of the proposals vary in appearance.

Findings, Redesigns, and Recommendations:

Location 1: South A Street and Main Street

Figure 12: South A Street and Main Street. Springfield, Oregon.

Image Credit: Google Street View

Figure 13: South A Street and Main Street. Springfield, Oregon.

Image Credit: Google Street View

Figure 14: South A Street and Main Street. Springfield, Oregon.

Image Credit: Google Street View

Problem Analysis

South A Street as it runs through downtown Springfield currently has an unprotected bike lane between bus lanes, right turn lanes, and car traffic. Additionally, the current infrastructure only provides an eastbound lane, meaning there is currently no direct westbound access through Springfield's downtown. East of downtown, South A Street has three car lanes and one unprotected bike lane. The street provides little security for active transportation and prioritizes automobile travel. It is likely the current augmentation of lanes is overly wide, encouraging speeding and discouraging prospective cyclists.

Proposed Redesign and Justification

Students propose redesigning South A Street to include a westbound bike lane on Main Street and moving the existing bike lane to the curb. This provides a westbound route and bikeway between Main Street and South A Street, improving connectivity in Springfield's downtown. This design also removes all bike lanes between vehicle lanes, instead moving them between the bus only lane to provide buffer from traffic. This design further integrates Springfield's bike network by connecting the downtown bike routes to Pioneer Parkway bike path.

Figure 15: South A Street and Main Street redesign, downtown Springfield.

A westbound protected bike lane on South A Street past Pioneer Pkwy is included and past 5th Street, one car lane is converted into a two-way separated bikeway. This design includes raised bikeways at bus stops and retains parking on Main Street in busy areas. Furthermore, the protected bikeway buffers bike lanes for user comfort, provides landscaping and provides high-quality multimodal connection throughout Springfield. After discussion with community engagement groups, students opted not to remove any parking in this design, only utilizing driving lanes for transformation into cycle tracks, due to the possibility of resistance by Springfield residents.

Figure 16: South A Street redesign from 4th Street to 7th Street, Downtown Springfield.

Location 2: 42nd Street

Problem Analysis

The section students focused on in North 42nd Street is a minor arterial that runs through an area mixed with industrial sites like International Paper, community services such as The Arc Lane County, local businesses, taverns, and nearby residential neighborhoods. Farther north, it also passes the Springfield School District offices, proving the need for better bike infrastructure for commuters, employees, and families. The current narrow, unprotected bike lane passes through a right-turn lane, forcing cyclists to either ride between fast moving traffic or resort to sidewalks not designed for shared use. This creates safety concerns and can discourage everyday bike travel in an area where people are likely to walk or bike for work, errands, or local access.

Redesign and Justifications

Students proposed a redesign that creates a protected bikeway on the right side of the road parallel to 42nd Street, and goes around the right turn lane to keep cyclists safer by being closer to the edge of the road. The redesign calms traffic with narrower lanes, and more room for greenery. Keeping pedestrians and cyclists physically separated from car traffic increases safety and encourages school-age children and families that live nearby to use active transportation.

Figure 17: This redesign of 42nd Street adds a protected bikeway, a barrier protecting bikes from right turns, and room for additional green space.

Figure 18: 42nd Street in Springfield with a two-way protected bikeway.

Location 3: Patterson Street from East Broadway to East 13th

Problem Analysis

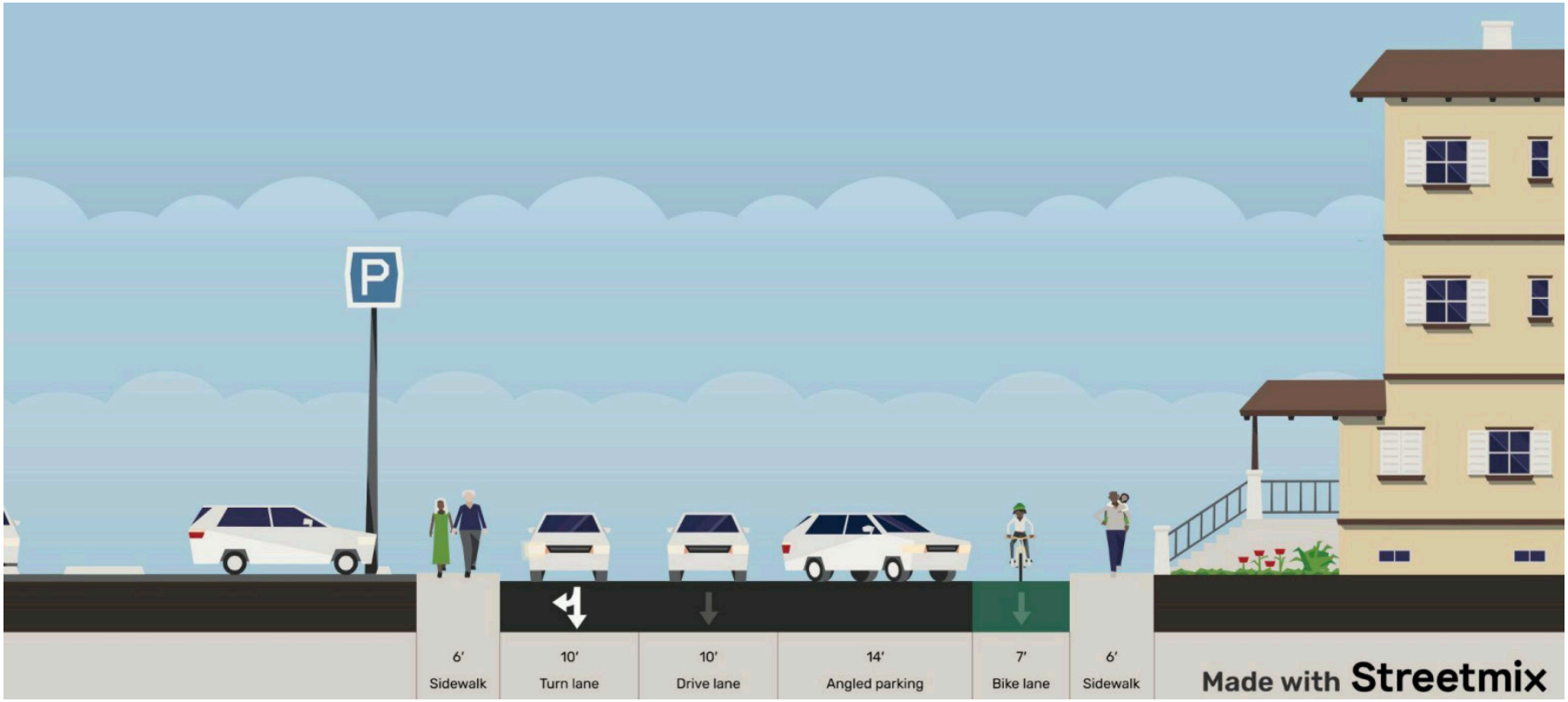
The PeaceHealth Rides Barnhart location is one of the most heavily used hub locations in Eugene. With constant usage by students and no adequate bicycle infrastructure in the immediate surrounding area, Patterson Street is due for redesign as current conditions disincentivize cycling. Improvements in cycling infrastructure along this critical corridor may include greater multimodal travel and reduce the car-centric design of the street.

Redesign and Justifications

In response to this analysis, students propose adding a 7-foot wide one-lane bike lane on the east side of Patterson to facilitate a connection between off-campus student housing, primarily at Barnhart and on East Broadway, by connecting East Broadway to the existing protected bike lane on East 13th Avenue. To add this bike lane, students recommend eliminating parallel parking on both sides of Patterson and placing diagonal, pull-in parking between the added bike lane and the two driving lanes, to serve as a buffer for cyclists from drivers. This redesign does not include any infrastructure additions aside from repainting the lines of the road to accommodate each change and additional parking buffers. The redesign has been curated with the exact same street width (from outside of sidewalk to outside of the other sidewalk) that is currently 53 feet wide. The driving lane will move to the far-left side of the street and be reduced to 10 feet-wide instead of 12 feet allowing drivers to feel comfortable. The angled parking in the redesign is 14 feet wide with 60-degree angled lines, but this can become a steeper angle if less width is desired. The parking spaces will include horizontal parking buffers to make sure cars do not pull far into the bike lane. The bike lane will flow with traffic, one-way heading south, and include green paint to distinguish it from the rest of the road and flow into the existing green bike lane on East 13th Avenue. This redesigned infrastructure will continue on Patterson Street from East Broadway to East 13th Avenue. This allows it to connect to the existing bicycle infrastructure on East 13th Avenue, which already acts as a transportation highway with access to the UO campus.

Figure 19: A Patterson Redesign showcasing an enlarged bike lane separated from travel lanes by angled parking.

Figure 20: Another viewpoint of the redesign, incorporating more room and safety for bikes and pedestrians while still providing necessary space for car traffic.



Key changes include the addition of a 7-foot bike lane, 14-foot wide angled parking, and a driving lane size reduction from 12 feet to 10 feet. An aerial view of the Patterson Street redesign follows, displaying the 7-foot one-way bike lane, ample diagonal street parking and the slimmer, but still comfortable driving lanes.

Figure 21: The redesigned portion of Patterson Street near Barnhart Hall.

Location 4: Charnelton Station

Problem Analysis

Currently, Charnelton's northern stop forces bikes directly alongside cars and parking lanes. The lane is removed completely in this redesign, as there is an abundance of parking lots and underuse of parking spaces. The bike lane features a painted barrier and protective cones to separate and protect cyclists.

Figure 22: A Streetmix redesign showcasing a solution to Charnelton's current design which allows for dangerous bike-car interactions.

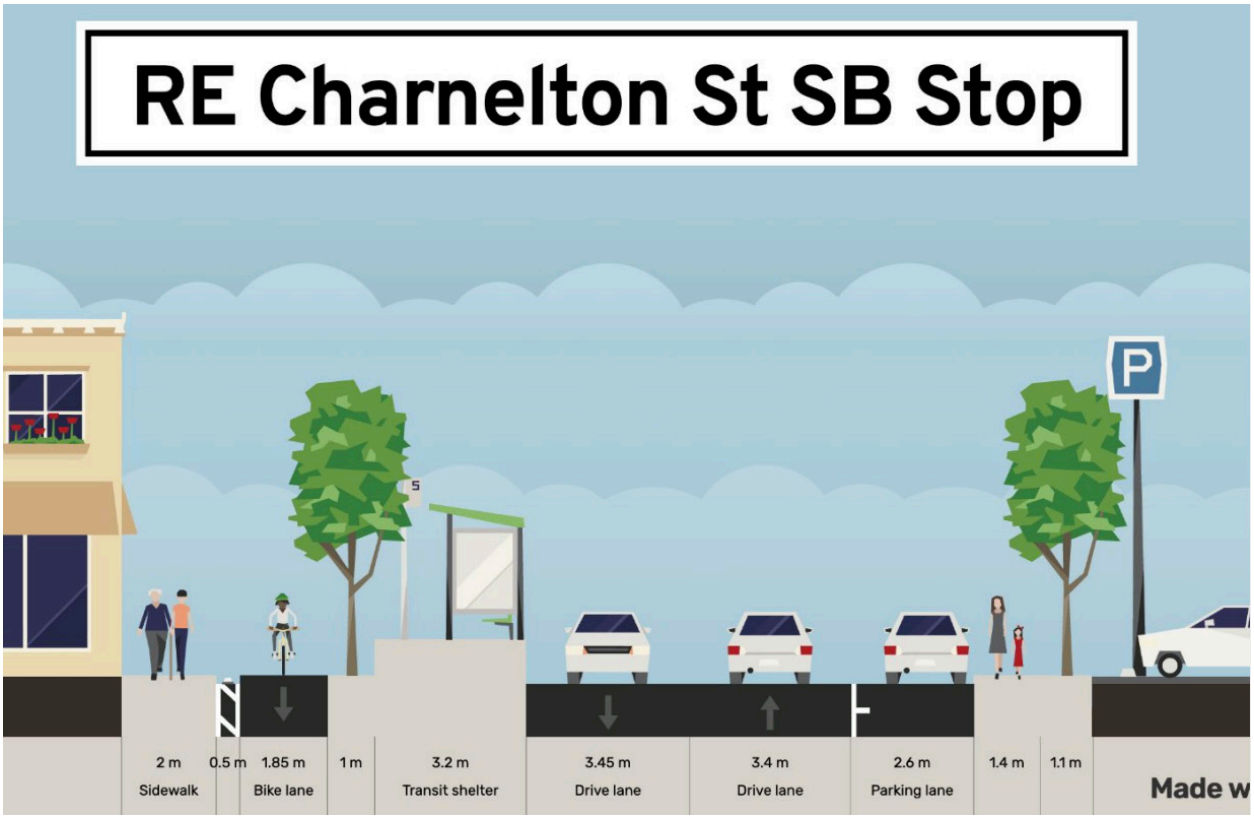
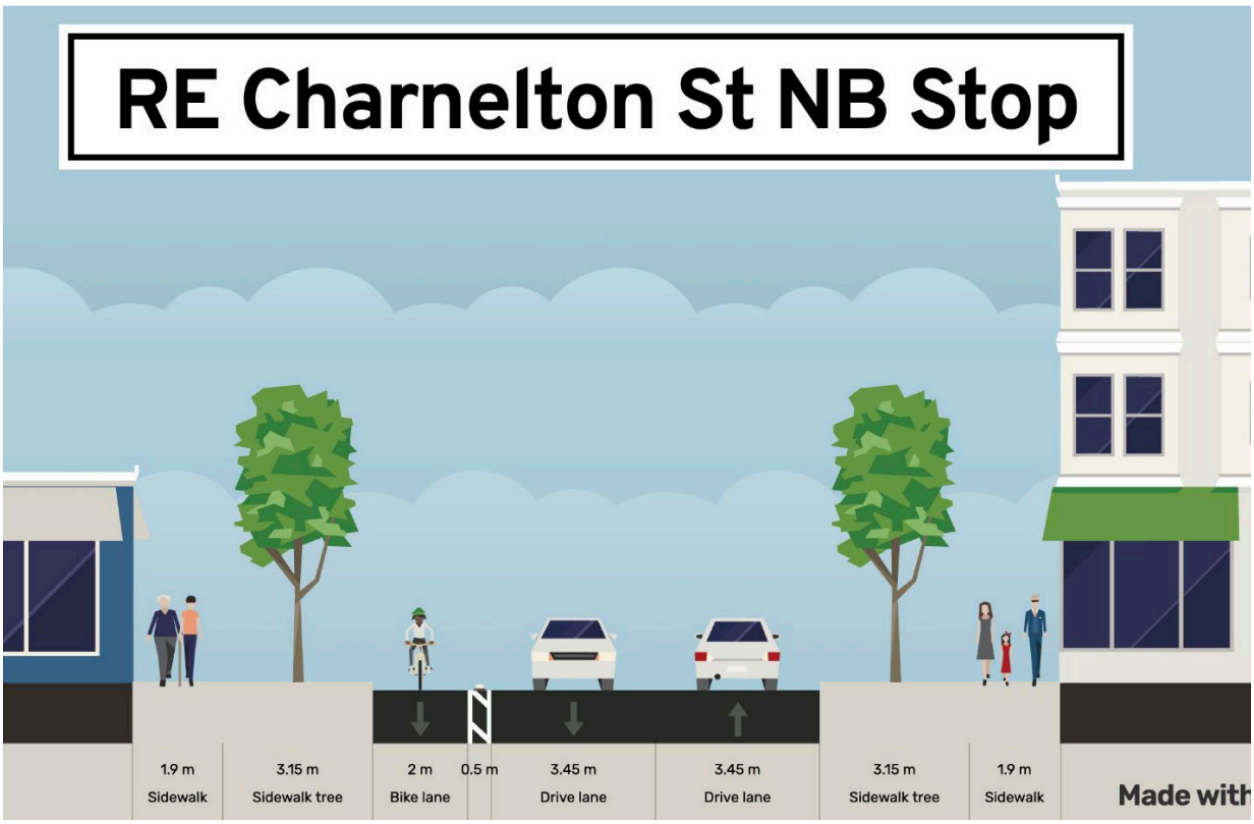


Figure 23: A redesign of the the EmX Charnelton Northbound stop with parking removed, narrower drive lanes, and a larger bike lane.



Redesign and Justifications

To facilitate better bike lane safety and navigation, the bike lane was pushed closer to and leveled with the pedestrian sidewalk, divided by “Zicla Zebra” physical barriers, similar to those by the Farmers Market Pavilion. The new traffic flow allows bikes to continue their movement, regardless of bus pickups, while still protecting pedestrians through clear pavement delineations for bikes, ADA accessibility, and exit ramps. Additionally, a large shrub or tree barrier is recommended to provide shade to those waiting at the bus stop or along the sidewalk to create a more comfortable environment on sunny days.

Community Engagement

Policy Objective

Assess community needs regarding active transportation in relation to LTD and Cascadia Mobility's services.

Methods

The core idea of this project was to engage the Eugene community in conversation surrounding the use of PeaceHealth Rides. Students developed a survey to examine PeaceHealth Rides usage near housing and identified potential usage barriers. In support of the survey, students also offered a mapping exercise to help visualize where community members want to see new bikeshare hubs. The community engagement group hung posters with their survey via QR code around the UO campus and attended two events to elicit responses. Students attended Professor Binder's PPPM 205 Intro to City Planning section to gather responses from the student community and the May is Bike Month event to obtain responses from the wider Eugene bike community.

Community Engagement students also collaborated with one of the mapping teams to obtain a map of all existing PeaceHealth bikeshare hubs in the Eugene area. For this exercise, students printed two large versions of the map and brought them to both events attended by group members. At each event, participants place stickers on locations where they would like to see new PeaceHealth bikeshare hubs implemented. The stickers were color-coded to correspond with the mode of transit participants typically use. Students then synthesized the data in order to provide suggestions to increase ridership.

Key Responses

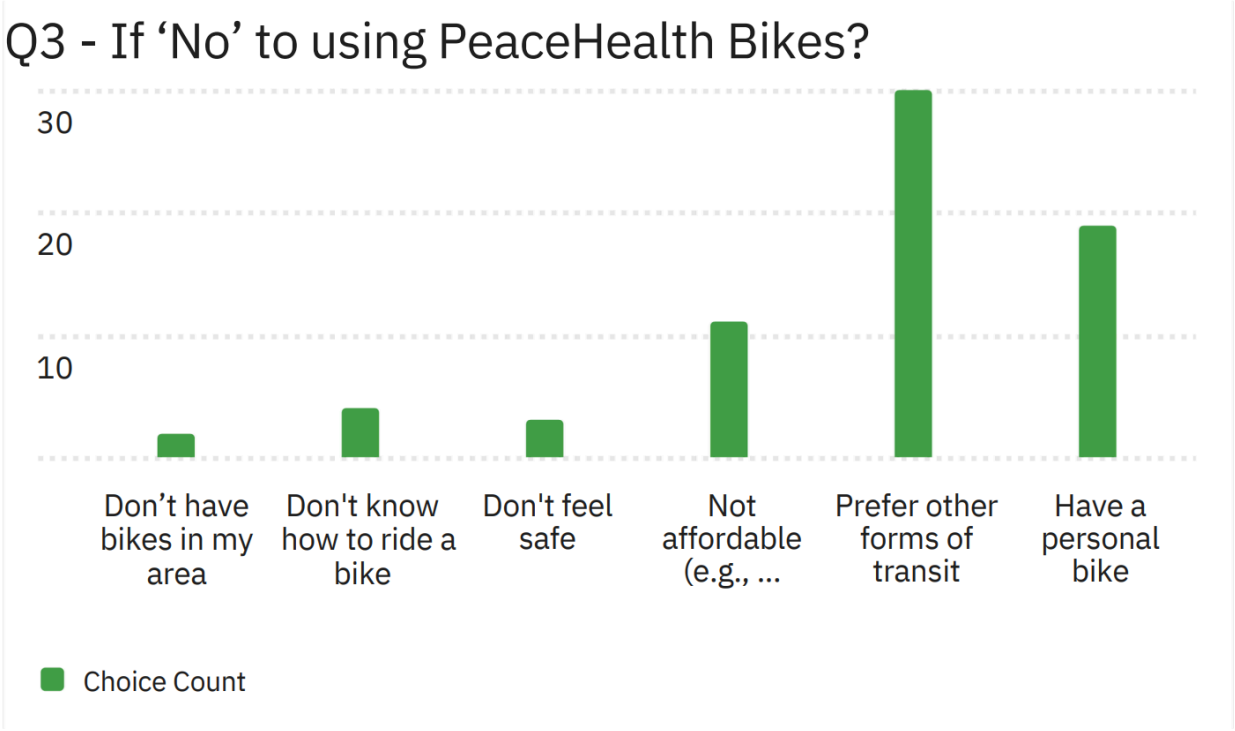
The community engagement group focusing entirely on student feedback received 141 responses. The other group, which surveyed both students and the greater community, received 83 responses in total. Below is a summary of the most important feedback gathered in surveying.

Most survey participants thought PeaceHealth hubs were conveniently located

Most participants don't use PeaceHealth Bikes because they prefer other transit, have a personal bike, or find the services unaffordable

Participants most want to see more bike types (like electric), better marked bikelanes, and more flexible pricing

Figure 24: Student responses from one of the community engagement groups' surveys.



Findings and Recommendations

UO IntroDucktion Outreach and Bikeshare Affordability

Although Cascadia Mobility already partners with UO Transportation Services, students identified an opportunity to deepen this relationship by collaborating more closely with the "IntroDucktion" and Week of Welcome teams. Previously, PeaceHealth Rides collaborated with the team by tabling at IntroDucktion and training tour guides on bikeshare use—efforts students would like to see return.

They also recommend including a PeaceHealth Rides flyer in welcome packets, allowing new students to review the information at their own pace amid the busy Orientation and First Week events. Another idea is to host a First Week bikeshare event, such as reimagining the traditional walk to Autzen Stadium as a PeaceHealth Rides bike tour. This would give students a fun introduction to the app, bike unlocking, and Eugene's bike lanes—helping boost early ridership.

Students also recommend requesting additional funding from the Associated Students of The University of Oregon (ASUO). This funding comes from student fees and is allocated by student representatives to support campus programs, services, and student organizations. In the previous budget cycle, most funds were allocated to the Family Co-op, but there may be more available this year. Since many students find the current $8.00 subscription fee too expensive—and with the price increasing to $10.00—students propose requesting enough funding to reduce the cost to around $5.00. Survey results indicated that many students perceive PeaceHealth Rides as too expensive, possibly due to a lack of awareness about the student membership plan. This highlights the potential for collaboration with UO orientation programs to educate incoming students about available discounts.

Barriers to Multi-Modal Transportation Use Among Students

Many UO students rely on a single mode of transportation and find the idea of using multiple modes too complicated or unappealing. However, students believe that future public transit development in Eugene should consider how multiple modes can work together, especially for residents with longer commutes. Students feel that areas outside the central UO campus should be prioritized for multimodal transportation improvements.

Feedback indicated that better multimodal infrastructure in the broader Eugene area could encourage students to consider it a viable option. Beyond expanding protected bike lanes, students emphasized the need for better integration between LTD and PeaceHealth Rides, such as a partnered app showing PeaceHealth Rides hub locations relative to bus stations. This would make multimodal transportation more appealing for trips to places like doctor's offices, grocery stores, and restaurants.

A significant barrier is a general lack of knowledge. Many students have never used a PeaceHealth Rides bike and are unaware of how easy it is to do so.

Community-Suggested Improvements to Bikeshare

Survey and mapping participants expressed a strong desire for more hub availability and expanded service areas. They also called for improvements to app usability and the introduction of different bike types. Many participants simply preferred other transportation modes over PeaceHealth Rides bikes.

Students received feedback that PeaceHealth Rides bikes are too heavy for elderly users, limiting accessibility. To address this, they suggest offering lightweight and electric bikes to accommodate different ability levels.

Based on mapping exercise feedback, students recommend expanding the PeaceHealth service area to include Alton Baker Park and West Eugene. Additionally, the survey revealed a desire for a more user-friendly app. Students propose integrating the PeaceHealth Rides app services with LTD bus app services. Combining both transit methods in one platform could inform current dual riders of availability and encourage single-mode users to explore multimodal options.

Accessibility, Equity, and Inclusions in Eugene's Bicycle Infrastructure

People showcasing MOGO Detroit's fleet of varying adaptive bikes offered in their bikeshare program, a service that is not currently offered by PeaceHealth Rides.

Policy Objectives

This group outlined a vision for a more inclusive and equitable bicycle infrastructure in Eugene. Key policy objectives include prioritizing marginalized neighborhoods in transportation planning, conducting ADA compliance audits for all bicycle infrastructure, and directing funding toward equity-focused transportation initiatives. Additionally, students advocated for subsidy programs to make adaptive bicycles more accessible, recognizing that the high cost of these bikes often excludes individuals and families from participation in active transportation.

Methods and Problem Analysis

To address existing barriers, the group proposes a range of infrastructure and service improvements. These include building wider, smooth-surfaced, protected bike lanes that can accommodate adaptive cycles such as handcycles, tricycles, and recumbent bikes. Students also recommend expanding existing lanes on key corridors like 13th Avenue and High Street, while halting future projects—such as the E 24th Avenue expansion—until they are redesigned to meet inclusive standards. Signal timing adjustments are also suggested to allow more time for slower riders to cross intersections safely, using audit tools similar to those employed in Austin, Texas.

This group also highlights the need for oversized, secure, and accessible bike parking to accommodate nonstandard bikes. Curb cut integration is emphasized as essential for ensuring that parking-protected bike lanes do not create new accessibility barriers. ADA compliance audits are recommended to identify and resolve such issues. Additionally, the students recommend increased bike storage at public transit hubs to support multimodal travel for people with disabilities, reducing reliance on more expensive paratransit services like RideSource.

Findings and Recommendations

Beyond physical infrastructure, the students stress the importance of inclusive programs and services such as accessible bikeshare options, mobile bike maintenance support, and on-demand cycle delivery for individuals who cannot easily reach bikeshare hubs. The group also recommends developing adaptive cycling education programs and inclusive bike safety courses tailored to riders with cognitive, sensory, and mobility disabilities. Community engagement is encouraged through sensory-friendly guided rides and the inclusion of adaptive bikes at local events such as the Saturday Market, E-Bike Expo, and Eugene Sunday Streets.

Partnerships with disability advocacy organizations are critical to ensuring genuine inclusion. Collaboration with groups such as Lane Independent Living Alliance, Oregon Adaptive Sports, and the Oregon Supported Living Program can help co-create policies and programs that reflect the lived experiences of people with disabilities.

Conclusion

LTD partnered with Bicycle Transportation students to develop a long-range mobility policy document to support new strategies that connect active and public transportation and improve mobility throughout Eugene-Springfield and greater Lane County. The purpose of the combined policy proposals and findings is to offer diverse case-studies on the current system, along with recommendations for growth and change in the future. Key takeaways point to the large market for connected transportation services. Through linking the services of bikeshare, public transportation, and improved infrastructure, Cascadia Mobility and LTD can work together to create a more comprehensive, improved transportation landscape. Students' use of mapping and policy analysis identified areas of improvement for expanded services and governmental interaction. With a combined effort to improve street composition and fill gaps in transportation accessibility, cycling in Eugene-Springfield can become both safer and more equitable. Including these proposed recommendations, policies, and designs in future plans may supplement each organization's shared goals of improving mobility and facilitate the development of an improved, interconnected community.

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SCI Directors and Staff

Marc Schlossberg	SCI Codirector, and Professor of Planning, Public Policy and Management, University of Oregon
Nico Larco	SCI Codirector, and Professor of Architecture, University of Oregon
Megan Banks	SCYP Director, University of Oregon
Lindsey Hayward	SCYP Assistant Progam Manager, University of Oregon
Marsha Gravesen	SCI Fiscal and Office Manager
Grace Craven	Report Coordinator
Danielle Lewis	Graphic Designer