

An aerial photograph of a rail corridor, showing tracks, a road with parked cars, and some buildings. The image is overlaid with a white grid pattern.

Wilburton - Bellevue

Integration of the Eastside Rail Corridor



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Executive Summary

As the Eastside Rail Corridor bike trail is built, this new urban form of transit offers new opportunities for sustainability, innovation, and quality of life in Bellevue's Wilburton and Bel-Red neighborhoods. Like Transit-Oriented Development, trail-oriented development involves focusing/targeting new businesses, community spaces, and public projects in areas adjacent to, near, and otherwise accessible from trail infrastructure. This offers residents, employees, owners, entrepreneurs, and customers more freedom to choose how they travel, and will lead to more interaction, use, and stimulation, and improvement in the local economy and community.

We examine a series of case studies from other cities to interpret their experiences with trail-oriented development and to draw insight from the benefits and costs observed there and apply these lessons to Bellevue's unique situation.

When moving forward in the quarter, we dove into the case studies, gathering important information as to how Bellevue can apply different methods to the ERC. We looked at different kinds of amenities along the local Burke Gilman Trail and expanded our scope to trail projects that have happened around the US in places such as Texas, Georgia, and Chicago. Meeting with stakeholders midway through the quarter also helped us refine how we conducted our research and gave us direction into how the ERC will be developed. With this information, we were able to synthesize our case studies into best practices to be recommended for future development along the ERC.

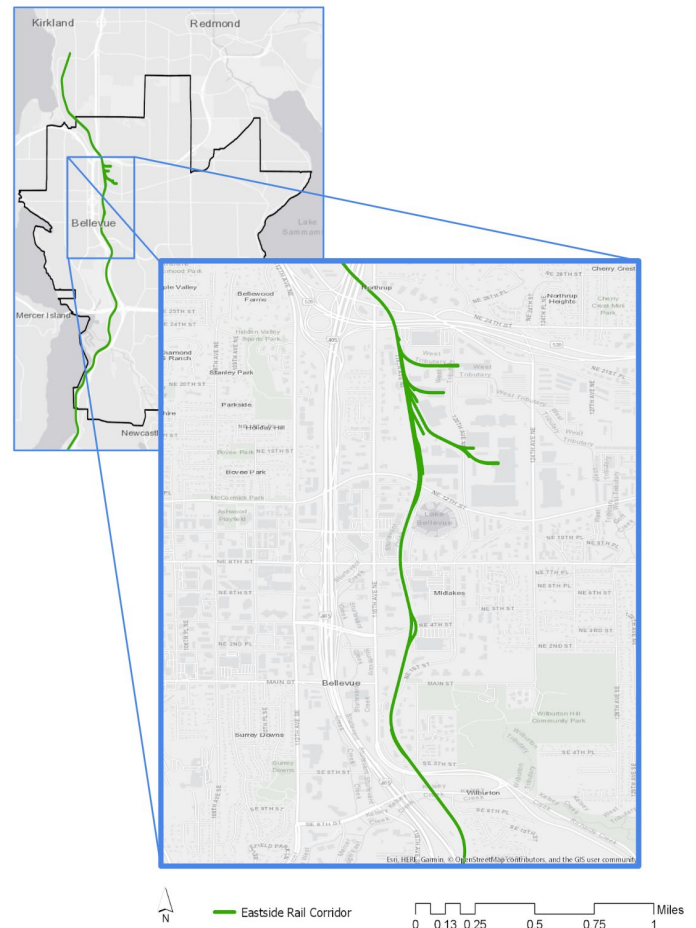
Using the information gathered through our case studies along with the help of spatial analysis software, we applied these best practices to Wilburton. Highlighting various locations central for trail-oriented development, we figured out how these best practices could best be implemented along three levels; tactical urbanism, adaptive reuse, and long-term development.

Introduction

Trail-Oriented Development, at first glance a spin-off term of the more familiar and nearly ubiquitous Transit-Oriented Development, emphasizes a similar theme: the spatial and temporal efficiency of organizing more complete and more easily navigable urban environments by concentrating development around interconnected nodes of transit, making fast and reliable intra-urban travel a car-obsolescing reality for as many residents as possible. Trail-Oriented Development takes this theme a step further by incorporating safer and more accessible pedestrian and bicyclist routes that generally

double as engaging community resources for leisure, access to amenities, and exposure to nature. Especially when connecting directly to transit resources, a well-developed urban trail environment has the potential to sustainably and effectively merge the quality-of-life benefits of public park spaces, accessible transportation hubs, and safely walkable communities into a flexible and expandable infrastructure for the betterment of public health, mobility, recreation, and economic vitality.

The Eastside Rail Corridor (ERC) in its entirety is a 16.7 -mile long rail corridor that connects many of King County's largest and fastest growing communities, including Bellevue, Renton, Kirkland, Woodinville, Redmond and even parts of unincorporated King and Snohomish counties. (King County) The ERC is currently in the process of being designed and developed into a major trail that will link regional trails, connect commercial districts, residential neighborhoods, employment centers, and transit hubs. The Eastside Rail Corridor trail is



expected to be the most heavily used trail corridor on the Eastside once it is fully complete. The entire project is being completed in segments.

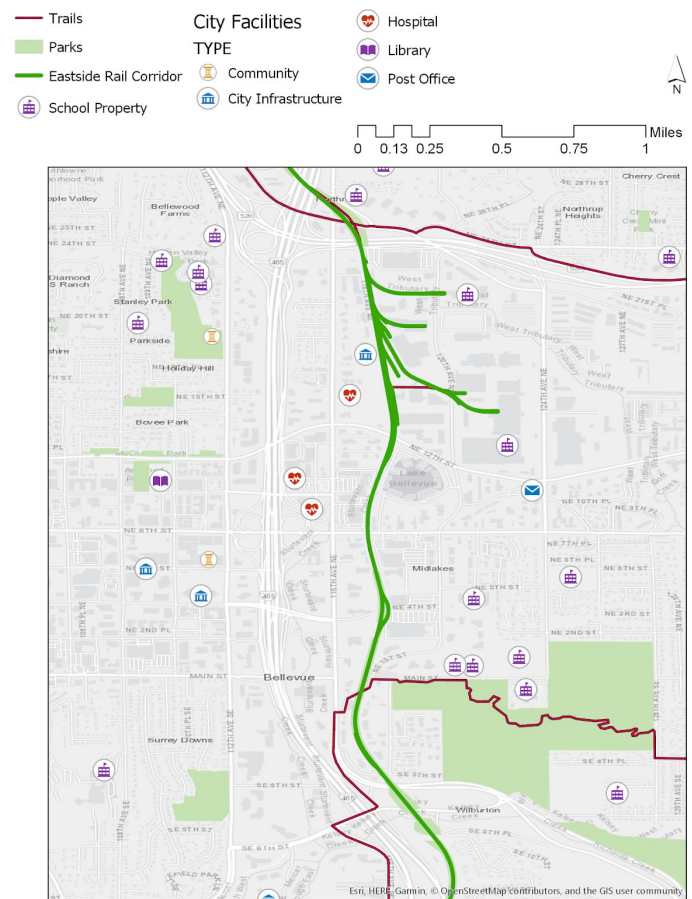
The Wilburton Segment that runs from 108th Ave. NE, through Bellevue, and ends at I-90, is currently going through the design process. Along with the design of the trail, this segment of the project also includes renovation of the Wilburton Trestle, a historical trestle, as a trail bridge that will become an iconic part of the ERC.

Context Maps

We Chose these specific maps to highlight different aspects of Bellevue that are important for future development. The asset map is important to show the different entities that are in the Wilburton area and can be utilized for development. The income map is important to inform on the socio-economic levels in the city of Bellevue. The constraints section has a map showing the different ownerships along the ERC. The land where the trail is going in is owned by several organizations, so it is also important to show that information.

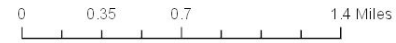
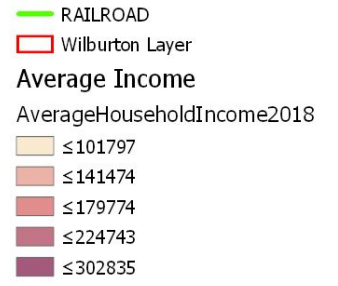
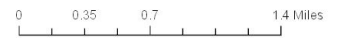
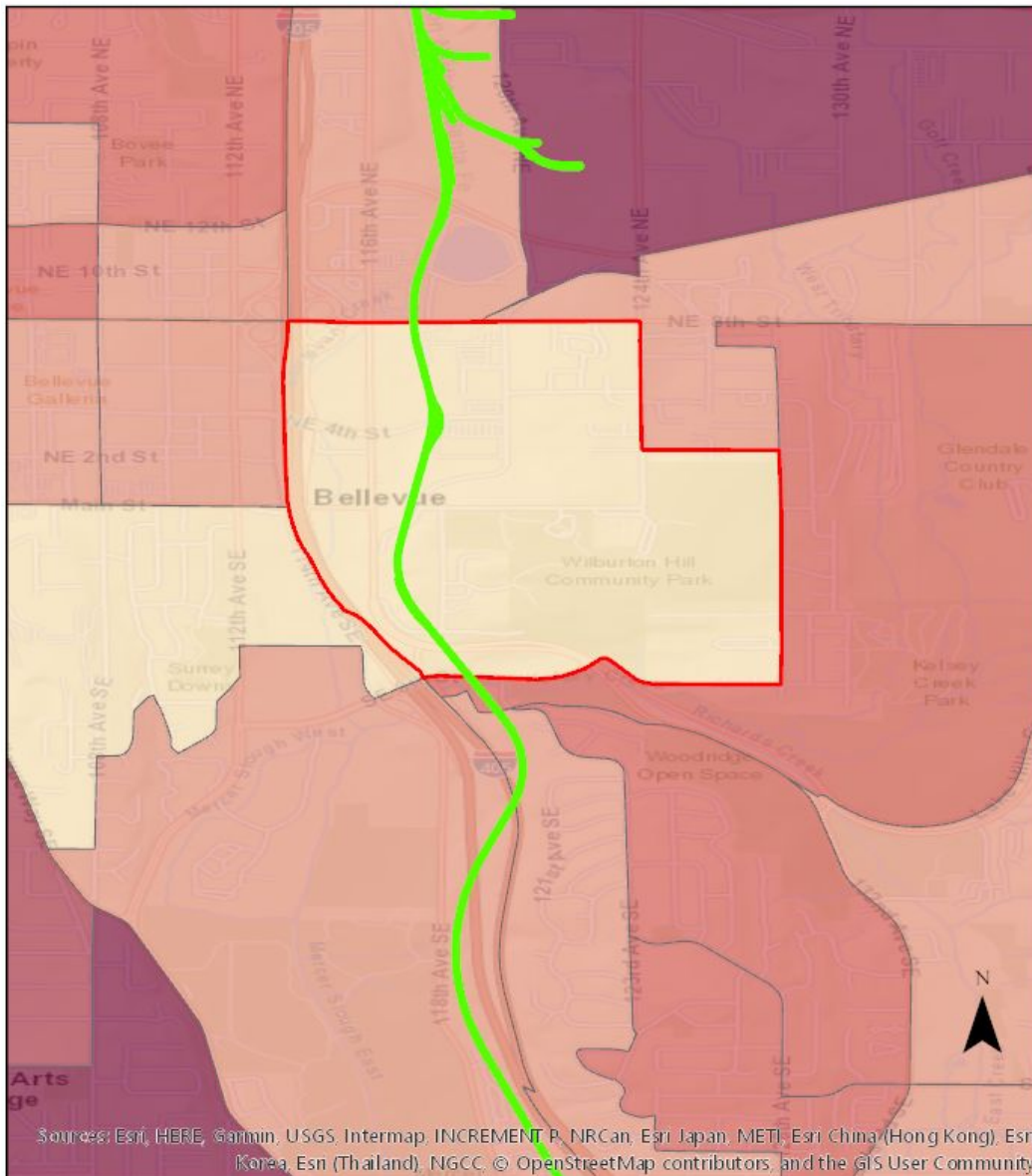
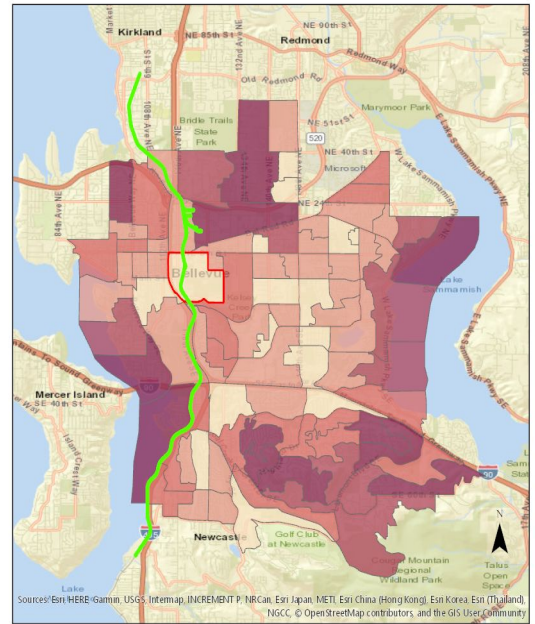
Assets

This asset map shows various places of interest that people can travel to and from along the alignment of the future trail. Additionally, the map highlights opportunities for new development, largely through the inclusion of school properties that do not currently have facilities on them. The trail also provides good access to the large botanical garden park which is not only an asset for the neighborhood but the city and the greater Bellevue area. Furthermore, when considering the future implementation of the Grand Connection pathway through downtown, there are so many places of interest along the trail and soon to be more. Additionally, once the light rail station is opened, this will allow the ERC to become a spine of equitable transportation in Wilburton and the greater Bellevue area.



Income

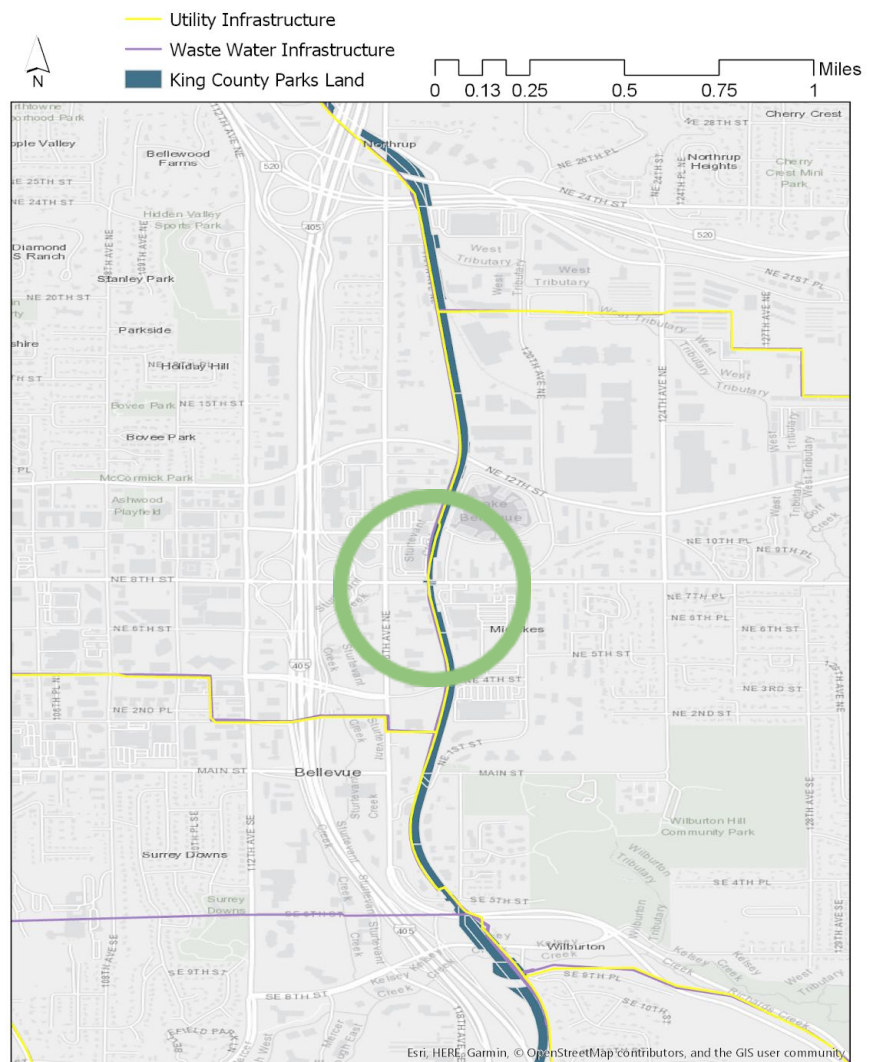
This map shows the average incomes in the city of Bellevue. The darker shades represent higher average incomes and the lighter shades represent lower average incomes. The sections are divided into block groups, which are the smallest tracts with publicly available information. This map is to highlight that the Wilburton Area is in a lower income area compared to the rest of Bellevue. With the implementation of this urban trail runs the threat of displacement due to rising property prices.



Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, © OpenStreetMap contributors, and the GIS User Community

Constraints

While the Eastside Rail Corridor will be a benefit the Wilburton neighborhood along with greater Eastside area, there are multiple attributes that constrain development around the ERC. Beginning with the ownership of the rail line, Wilburton is the only segment where Sound Transit has ownership of the rail line along with King County. Although these two organizations are permitting the development of the ERC, the land will remain under their ownership. Due to these circumstances, there remains an opportunity for the railway to be recommissioned, resulting in the removal of the ERC and implementation of the rail line. Given these parameters, development along the ERC should take into account this potential threat. Another constraint the ERC has lies below the surface in the form of a fiber-optic cable network. Connecting the city's tech giants, this network runs along the ERC and poses as a threat during the redevelopment on and around the trail. In order for this network to remain intact, caution must be taken when building the trail and implementing trailside features.



Literature Review

This report will summarize the key opportunities, challenges, and planning considerations of trail-oriented development for this Livable City Year project by exploring the appropriateness of this development strategy for the Wilburton area of the Eastside Rail Corridor.

The Emergence of Trail-Oriented Development

Trail-oriented development, particularly of the ‘rails-to-trails’ form being explored here on the ERC, has begun emerging from abandoned or defunct intra-urban railways as American cities outgrow the original freight infrastructure that supported industrial growth throughout the twentieth century, with those railways now becoming in many ways/instances obsolete within transitions toward post-industrial and technology-sector economies in modern urban cores. The re-purposing of these railroad right-of-ways (often a complicated process with overlapping claims to the land for transit, utility lines, etc. as it is on the ERC) is an excellent way to make effective and economical “repurposing and redeveloping [of] abandoned infrastructure, such as old rail lines, streets, or highways, into environmentally sensitive and supportive parks and trails, often with intended densifying effects on local residential and commercial land use” (Immergluck and Balan, 1). Communities across the country are implementing rails-to-trails redevelopments for rehabilitation of old railways for intra-urban circulation of goods, often ideal for multi-use development spaces with existing linear continuity and a prime location for the redevelopment of industrial areas and making large-scale transitions to more pedestrian- and bicycle-friendly, transit-oriented communities.

Economic Benefits and Risk of Gentrification

Trail-oriented development has established itself as “an economic catalyst and vital contributor to quality of life” wherever it is implemented. Consistently raising direct spending through retail, recreational, and tourist activities, forming community gathering places and thus

social and economic hubs, enhancing the property tax base within walkable distances from core trail routes, and increasing both retiree retention and younger generation influx to trail-adjacent neighborhoods. Offering a perfect landscape for merging park-like recreation and aesthetic values with dense mixed-use development/zoning offers a great level of proximity for compatible/cooperative services and land uses, resulting in reduced travel distances/times between daily activities and improving residents' abilities to comfortably live and work without the stresses of traffic and parking between tasks (Ross et al.). Improving density and accessibility among employment and education sites, commercial and healthcare/utilitarian services, recreational facilities, and transit stations allow trail-oriented development to further improve upon and extend the benefits of transit-oriented development and thus offers a doubly-valuable epicenter for development along these trails. Unfortunately, this impressive package of benefits does not come completely free of side-effects: while it is certainly a best practice to encourage trail-adjacent development in both public and private sector retail and housing to support the active and walkable ideals of modern 'new-urbanist' and transit-oriented development, these compounding valuable new amenities have shown time and time again to create a significant draw for gentrifying what have in many cases been previously industrial and low-income urban areas as grouped locational benefits will demand higher housing/land prices and can easily become economically-tailored toward high-income households, the demonstrated side-effect of trail-oriented development to displace or exclude low-income communities and individuals/families from the surrounding neighborhoods must be preemptively taken into account to ensure long-term affordability for an area that will undoubtedly undergo rapid and significant growth in the coming years.

Public Health

Accessibility to health-promoting spaces, retail/commercial goods and amenities, employment and education opportunities is dependent upon both direct proximity and effective transportation infrastructure to enable as many people as possible to make use of those

resources. Several studies have linked chronic health conditions with proximity and ease of access to trails, parks, and other recreation infrastructure, some of which include increasing prevalence of obesity, cardiovascular ailments, diabetes, mental health issues, and heart disease among populations with low/limited access to such resources. Many of the most pressing chronic diseases in America are linked to unhealthy food and air quality as well as physical inactivity of modern consumer lifestyles and widespread automobile dependency, therefore, creating more naturally engaging and spatially efficient/convenient communities can help address critical livability issues. Some sixty percent of the adult population in the United States lives at elevated risk for preventable chronic diseases due to failures to engage in a daily physical activity standard of ~30 minutes, and prevalence of early-onset cases of similarly preventable diseases among youth populations is following suit. (Owen et al. 4) Integrating inviting and convenient opportunities for physical activity in residents' commuter experiences, grocery and commercial activities, and other daily needs is a core opportunity presented by trail-oriented development to improve the quality of life and general health of urban populations, along these lines "the CDC determined that by creating and improving places in our communities to be physically active, there could be a 25 percent increase in the percentage of people who exercise at least three times a week (United States Department of Health and Human Services). Additionally, within the well-documented phenomenon of low-income residents being displaced by gentrification factors, a self-replicating cycle often emerges in-which lower incomes can lead to less access to nutritious food and recreation options, compounded with more strenuous work and commute schedules allowing less time and energy to engage in adequate physical activity, resulting in a higher percentage of low-income populations suffering from chronic (generally non-communicable respiratory, cardiovascular, inflammatory) diseases like asthma, hypertension, diabetes. By densifying and maintaining an accessible level of affordability in and around trail-oriented development areas, planners can maximize the positive health and livability impacts of the trail environments and their amenities for as wide a range of residents as possible, helping to address some of the problematic

linkages between lower-income communities and poor health. Socio-economic determinants of health involve a triad of issues in affordability, nutrition and health services, and access to safe and enjoyable physical activity: individuals and families in low income and/or low educational attainment areas tend to have a lesser likelihood of perceiving their neighborhoods as inviting spaces for biking/walking/running, a lower likelihood of being within walking distance of public parks and recreation amenities, and a lower likelihood of adults regularly reaching the 30-minute threshold of moderate physical activity per day considered to be the minimum for alleviating excess risk to chronic disease. A further analysis of the potential for the ERC's redevelopment as a trail-oriented neighborhood will be conducted by another student group from the University of Washington's Department of Public Health in Spring 2019 in the form of an HIA (Health Impact Assessment) a form of research synthesis "expressly designed to deal with the population health effects of myriad public and private activities, including those primarily concerned with commerce, housing, transportation, labor, energy, and education" (Lee et al., 103)

Safety and CPTED

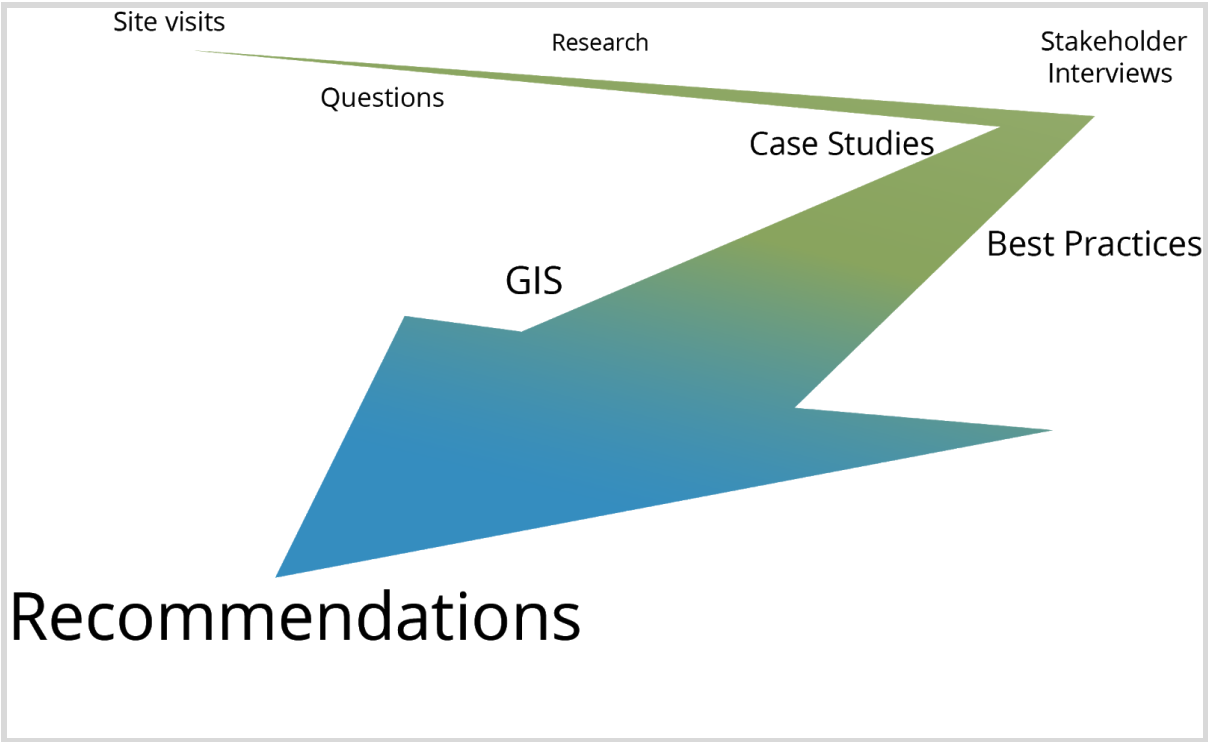
One area of concern in the development of trail-oriented neighborhoods is the permeability of the trail's spaces at all hours of the day, which can lead residents to feel a sense of fear over lost levels of control over access to their neighborhoods. While trails and greenway spaces contribute to communities by providing residents with increased opportunities to socialize, enjoy their commute, engage in physical activity and recreation, and benefit from increased exposure to nature, some of the spatial and high foot-traffic attributes of protected trails and relatively natural/forested spaces can affect the migration or expansion of crime just as easily as the socially and economically restorative attributes can diffuse and mitigate it. An ongoing and long-standing debate exists in the available literature as to whether greenways and trails/parks do in fact invite criminal and/or disorderly behavior; however, one outstandingly clear consensus is that trail and park spaces are generally not perceived as safe during the night,

regardless of physical characteristics, visibility, or actual crime statistics, which can result in avoidance of the trail due to hard-to-address psychological factors. In a recent study of the Chicago 606 trail, researchers observed a “rapid decline in violent [as well as disorderly and property-related] crimes in 606-proximate neighborhoods, [which] may stem from enhanced social interactions made possible” by the trail’s impacts of improved social capital and connectivity, as well as greater coverage of nocturnal visibility through trail lighting and consistency of use from the nightlife supported by trail-side recreation and culinary/brewery options (Harris, Larson, and Ogletree). As urban trail development continues to gain popularity and continue altering landscaping cities around the country, both researchers and professionals working in the field must continue to study and monitor these trails to gain a better understanding of their long-term impacts on crime and community.

Methodology

In order to provide helpful recommendations for the development around the ERC, we went through a number of steps to learn more about Trail-Oriented Development. Beginning with the site visit, all the members of the team met with Emil, our Bellevue point of contact, and went on our first site visit of the ERC. Visiting the Google campus, located in Kirkland, we were able to get a better idea of the type of trail the Wilburton portion of the ERC is looking to become. Taking notes, we observed the various methods of placemaking, which provide accessibility and intimacy with space. We also visited the Tressel and a local commercial-retail building, both locations show great potential for trail-oriented development. After visiting our site, the team met and discussed the major takeaways and problems we must address. After deciding what topics closely relate to trail-oriented development, we began our case studies of best practices. Through researching how commercial spaces such as retail, restaurants, and breweries affect trail systems, we were able to locate multiple places across the U.S. By looking at local trails, such as the Burke Gilman and the Cheshiahud Loop, we were able to locate places that promote trail use and appeal to the community. We were also able to find matured Rails-to-Trails projects across the United States, including the Chicago 606, West Rail Trail in Texas, and the Atlanta Beltline, which provide insights as to how communities have responded to and developed around these trails. Serving as a midway check-in while researching, we scheduled a stakeholder meeting with three individuals with diverse relations to the Wilburton ERC. The stakeholders included: Curt Warber - King County Project Manager for the ERC design; Betsy Anderson - Senior Planner in the City of Bellevue Parks Dept; and Misha Averill - with Legacy Properties, which owns property along the ERC just north of the Whole Foods. Through this meeting we were able to get answers to our standing questions as well as have industry professionals guide our scope for future research. With our case studies complete and best practices noted, we turned our focus towards how Bellevue will react to the implementation of the ERC. Referencing maps created by our team using GIS, we were able to highlight

locations in Wilburton that include community assets, zoning regulations, and income. With this demographic information collected, we were able to highlight areas with potential for community and commercial development. Continuing the topic of development, the Bellevue's City staff showed interest in seeing how the area surrounding the ERC can be rezoned to maximise this new community asset. Selecting to four locations along the Wilburton portion of the ERC, we performed a strength, weaknesses, opportunities, and threats (SWOT) analysis, which provides a general understanding about the spatial characteristics of each place. Following the analysis, graphics were made showing different stages of potential development along these sites. Finally, we compiled our findings in to the form of recommendations for the development along the ERC.



Case Studies

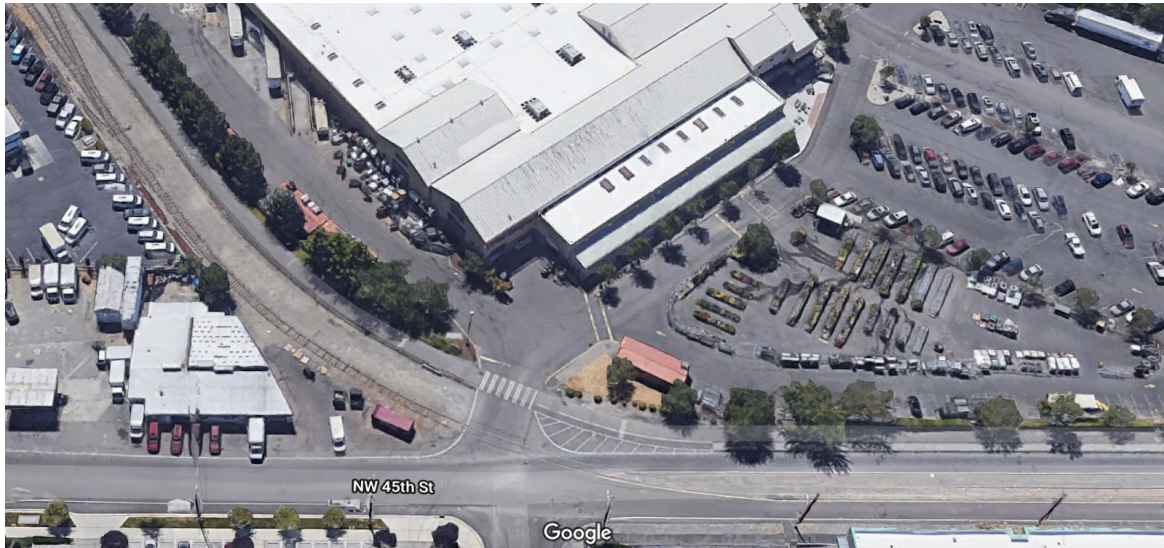
In order to properly complete a project on Trail Oriented Development, we decided it would be important to have different case studies that help us accurately speak to different problems and solutions for the ERC. We went into detail for the different kinds of amenities that could potentially be offered along the ERC as it continues to be planned and created. We also were sure to look at examples of existing rails to trails projects to gain an idea as to what some important themes were in making for successful trailside amenities and infrastructure. After doing research on these different aspects of Trail Oriented Development, we were able to procure a list of best practices that could be followed when planning for the ERC.

Retail

Part of the work of our project included looking at case studies of retail-commercial businesses located adjacent to trails similar to the Eastside Rail Corridor Trail. The reasoning for doing this was to grasp an idea of how retail-commercial can work well with Trail Oriented Development. Commercial development leads to extra money for the City of Bellevue as well as gives locals and outsiders a larger supply of options for stores to choose from.

Fred Meyer

The Fred Meyer located in Ballard, Seattle, sits adjacent to the Burke Gilman Trail. Having more than 130 multi-department stores, Fred Meyer is obviously a large-scale commercial retailer. We chose to look at both large-scale and smaller retailers.



This Fred Meyer location does many things well working with the Burke Gilman Trail. First of all, this location has clear signs and crosswalks, allowing customers driving to and from Fred Meyer are aware of bicycle riders and walkers using the Burke Gilman Trail, promoting safety. In between the trail and the parking lot of the Fred Meyer lies green space which provides a barrier between trail users and cars, again promoting safety. Another key item is a place for bikers to lock their bikes up as they shop. One negative aspect of this case study is that there lacks a detailed route for bikers to safely get from the Burke Gilman Trail to the entrance and area to park their bikes.

Counterbalance

Counterbalance Bicycles is a great example of a trail-oriented development retailer. From their name, it is easy to tell what services and items can be purchased at this location. While this store is an excellent compliment to have on a trail that sees bicyclists pass by back and forth every day, other developers can still get takeaways



from this store. Counterbalance Bicycles can be seen from both the Burke Gilman trail as well as NE Blakeley street. From both the street and trail, potential customers are attracted to this building as a mural around the whole building has been painted. The mural, portraying bicycles, does an excellent job of attracting customers from the Burke Gilman trail as it clearly advertises its product. This case study displays how existing development can improve their businesses through adaptive reuse. Counterbalance Bicycles cleared the wild brush that was in between the building and the trail and made a clear and welcoming entrance for trail-users. There is a clear area for bicyclists to park and lock their bikes. Lastly, they have a covered area if bicyclists wish to keep their bicycles safe from the weather during the rainy seasons of Seattle. One takeaway that is negative, is the lack of parking space for cars from the street. While this might make sense for a bicycle company, other development should utilize both the trail as well as the roads.

Restaurants

Having restaurants along the trail and easily accessible by bike is important in establishing the trail as a destination in addition to being a transportation corridor. Food is a universal need and restaurants can act as gathering places and activate spaces. Having places to congregate and linger along this type of trail is important.

St. Helens Cafe

The St. Helens Cafe is located along the Burke-Gilman to the east of the University Village Shopping area. Opened in 2016, the restaurant is designed to cater to trail-goers. While accessible from the road, the main entrance is from the trail itself. There is ample bicycle parking, directly off of the trail and from there a large patio area along the trail acts as an entrance and welcomes people into



space. The most prominent crossover area is along the trail, and this aspect demonstrates that

that is the direction they are focused on interfacing with.

The patio is set up to be enjoyed year round, with shade elements for the summer and patio heaters and a fire pit.

Along with the bicycle infrastructure adjacent to the trail, there are additional installations along a staircase down

to the main road that helps to further facilitate the movement of people and bikes, such as bike ramps and

specially designed handrails.



Solistico Cafe

The Solistico Cafe in Fremont is an excellent example of successful adaptive reuse. The building was originally built to serve as a facility for the railroad that previously occupied the corridor and as such, the cafe is located in an ideal location for easy access from the trail. A large garage door that opens directly on the trail draws people in and is an asset during the summer months. The fence that separates the trail from the rest of the parking lot promotes a feeling of safety. The location of the cafe adjacent to the trail brings it into many people's daily routines as a place to grab something along their way to where they are going.



Breweries

In this project, we thought it would be important to look into how breweries can become part of trail-oriented development. While restaurants and retail options are important, we also considered our geographic location and the expansive craft brewery culture that exists. Another aspect to these case studies is that there are articles that show a clear link to cyclists and craft breweries on both the consumer and business ends. Jeff Lockwood of Dirt Rag Magazine goes into depth to talk about how Breweries are often key sponsors of major mountain biking events on national and local scales. There is also a link between the breweries having bikes as part of their logos and branding (Lockwood). Another article that helped shape our case studies focused on the frequent placement of breweries along trail projects around the country. As cities continue to develop trail projects around the country, breweries continue to pop up (Robert Annis). The last important factor that an article in the HeraldNet brought to attention is that these breweries aim to serve a community. Some breweries even extend discounts and deals to people who choose to bike to their breweries to encourage biking and community building (Swaney). Given the abundance of information linking biking and breweries, we thought that it was a crucial area of focus when looking into the development of ERC.

Fremont Brewing

Fremont Brewery lies on the Burke Gilman Trail and is a well-established brewery in Seattle. While it operates at a large scale, it caters to many people, including goers of the Burke Gilman Trail. We decided to investigate some of the factors that have made Fremont Brewing popular and frequently full of loyal patrons.



For starters, Fremont Brewing has a prime location that is both accessible by car and pedestrians/cyclists along the Burke. It has parking for people who may not be able to ride their bikes there and can attract any customers who drive by it. From the trail, there is a ramp that leads to a crosswalk to make it safe and easy to go from the Burke to the Brewery itself. To extend this luxury, there is an abundance of bike racks for people to lock their bikes securely.

Another important aspect of its success is the placemaking that has happened. The first and most noticeable trait is the large and well-lit sign that acts as a landmark as well as provides lighting around the area. Bordering their outdoor seating area are plants that form a barrier between the road and the brewery itself. Lastly, they provide cover and space heaters which can make their outdoor suitable for year-round use.

Hale's Ales

Hale's Ales is another iconic brewery in Seattle and along the Burke Gilman Trail. While it is along the Burke, it seems to have varied access from the road and trail. While the trail and road access differ wildly, we wanted to use it as an example and pull from some of the successes of this site.



Hale's Ales attracts customers mainly from their roadside entrance but is also open to the Burke Gilman Trail. Having two doors is an important part of trail-oriented development that

will be emphasized along with the ERC. An important aspect is the abundance of space behind their building that can allow them to facilitate and create events which can draw in customers and support the Ballard community. It also is a great example of using art to create a sense of place. Having a back wall that is bright and visible from the trail also makes for a common landmark along the trail as well. We noticed a lack of bike racks in the back which could be helpful in making it a more trail friendly option for cyclists.

Chainline Brewing

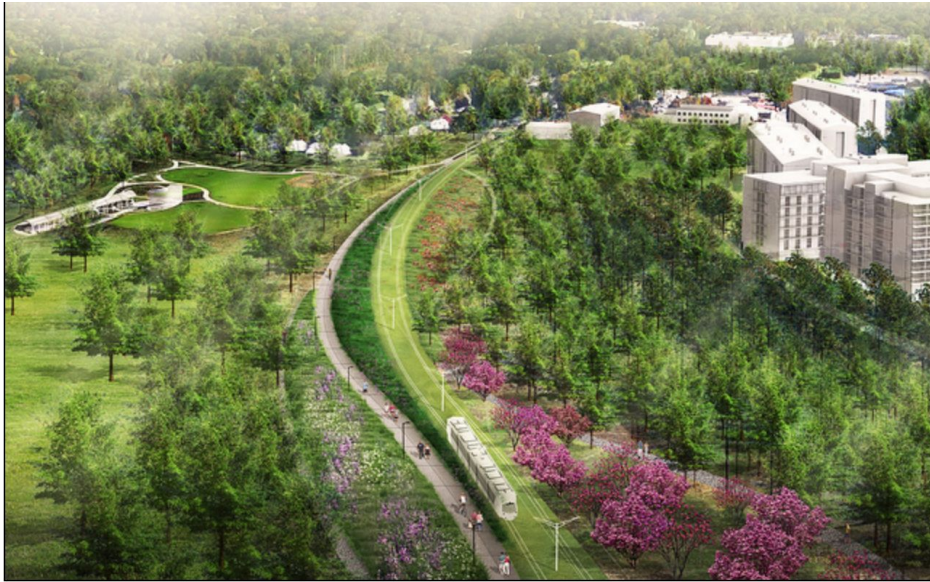
This is a much newer establishment compared to Fremont Brewing and Hale's Ales, but is also an important place to study, because it is an example of trail-oriented development in Bellevue and along what will soon be the ERC. It has some important features which can be utilized for future developments.



While newer, Chainline Brewing has established itself right on the Cross Kirkland Corridor and underwent extreme change to become accessible from the trail. The most important feature is that is directly on the trail and just takes a simple staircase up to the outdoor

seating area. They make it quick and easy to go up and grab a pint. Creating a comfortable gathering space was clearly at the forefront of design because their patio provides cover to help patrons enjoy a drink in any element. It also has nice hanging lights which help to make it a more pleasant experience at night and create an ambiance. The owners of the Chainline had to get special permits for the close building to the trail, but that could be the beginning of a trend for amenities along the ERC. Chainline is both accessible and has begun to activate the space it's working with to become a future staple along the ERC.

Trail Oriented Development Case Study: Atlanta BeltLine - Atlanta, GA



Source: Atlanta beltline HIA page 72, fig 5.5

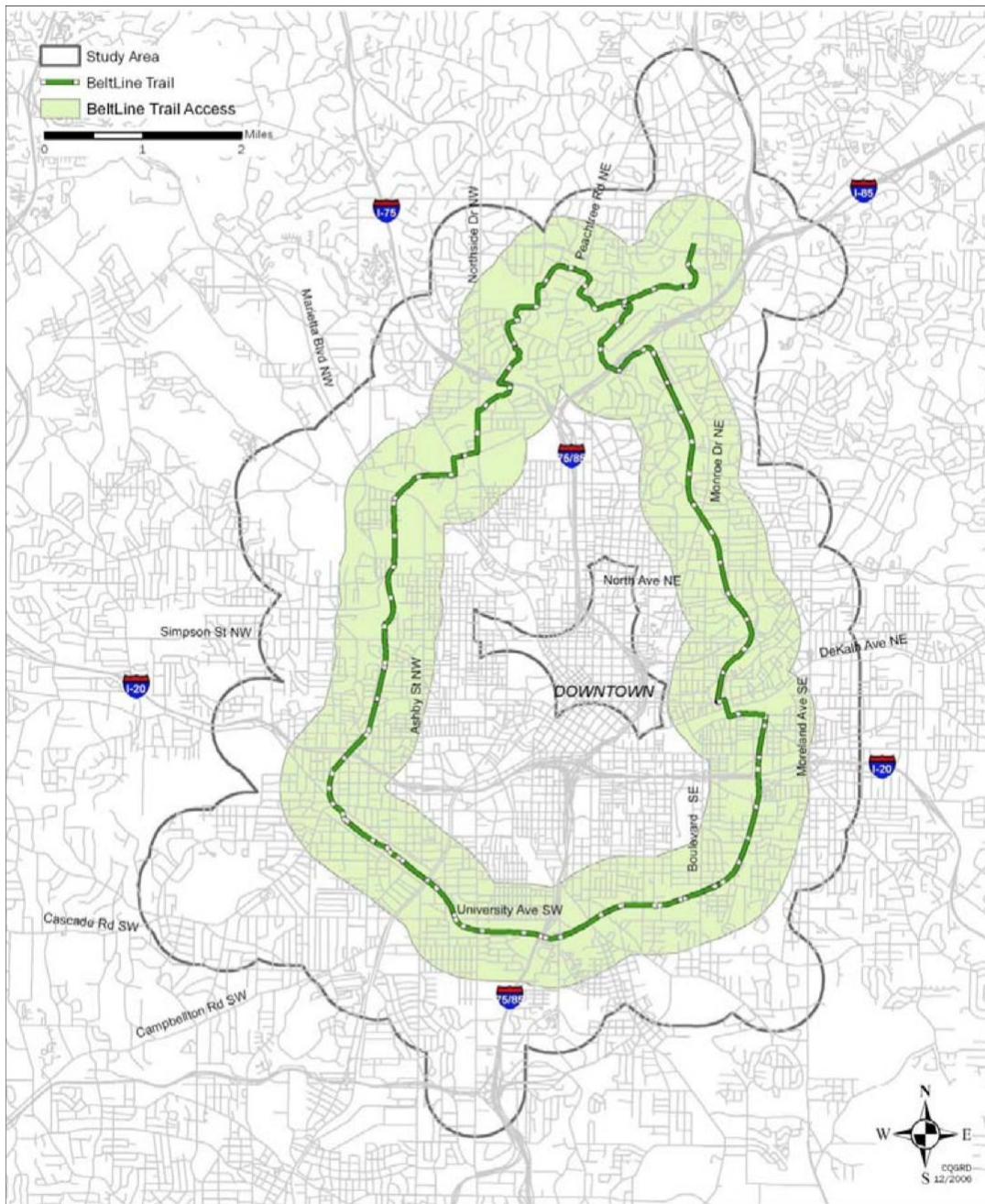
Source: <https://beltline.org/explore/photos/?setId=72157638582355696>

Prioritizing the production of a continuous loop of multi-modal “complete streets,” paths well suited to serve “motorists, transit riders, bicyclists, and pedestrians, including people with disabilities” for more than 95,000 residents within comfortable walking distance to the park/trail (Atlanta BeltLine HIA, 156, 158), the BeltLine has been designed for an effective cohabitation of transportation and recreation, once completed the central loop will offer safely aligned rail, bicycle, and pedestrian lanes and 33 miles of connecting trails among schools, parks, neighborhoods, transit and urban nodes with expanded bicycle infrastructure will continue to encourage active and healthy commute and lifestyle behavior. Additionally, the city has planned to invest in wider sidewalks, frequent police call boxes and improved requirements for pedestrian lighting for trail-adjacent areas to improve actual and perceived safety and minimize barriers to use. However, there has been some issue with a ‘temporal mismatch’ wherein public amenity development necessary to make areas along the Beltline’s route fully livable are lagging behind the rapid growth of private development (Atlanta BeltLine HIA, 154).

An interesting factor to consider in the development and planning of the BeltLine is the city’s implementation of a Tax Allocation District (TAD) with the aim of dedicating significant

portions of the increasing property tax revenues for the area around the BeltLine toward supporting housing and community development efforts such as an expected 28,000 housing units over the next 25 years, of which roughly 20% are expected to be dedicated for affordable housing to help prevent displacement and/or exclusion (Immergluck and Balan, 13). A much needed effort to ensure the now interconnected group of 45 diverse neighborhoods along the trail don't face unplanned economic consequences, as a recent study found that "from 2011 to 2015, depending on the segment of the Beltline, values rose between 17.9 percent and 26.6 percent more for homes within a half-mile of the Beltline than elsewhere" in the city.

From the most recent annual report (2017), the BeltLine appears to be well-received in the communities it has reached thus far in its construction, and the public's priorities seemed to align well with many of the city's primary planning considerations. 60% of those surveyed considered the BeltLine an enrichment to their community, a community forming asset, and a conducive place for health and fitness, and further survey results demonstrated that the public had high regards for the inclusion of public art, expanding accessibility, trail quality and safety, quality of parks, local economic growth, and community engagement events. A wise planning process for a redevelopment project spanning more than a decade, the BeltLine, Inc. has run priority surveys for the public to continually include their voices in the 'big-picture' development of the project, and in this report the highest priorities for development identified by the public were: 1) creating more parks and green spaces, 2) producing more affordable housing and supporting its maintenance, 3) completing the central loop, and 4) guaranteeing affordability for small businesses.



Areas with BeltLine Trail access

Source: Atlanta beltline HIA page 72, fig 5.5

Trail Oriented Dev. Case Study: Chicago Bloomingdale Trail - Chicago, IL



Source: Bloomingdale Trail and Park Framework Plan, page 10 fig.0.b

The Bloomingdale Trail, nicknamed ‘The 606’ after the area code, was originally a raised industrial rail-road called the Bloomingdale Line, which was owned by Canadian Pacific Railway and vacated in 2000, with the abandoned corridor becoming known as “an unregulated getaway for the homeless, drug users...and gang activity” until transformation of the rail line began in 2013, with a 100 million dollar reinvestment plan into the defunct infrastructure among a coalition of The Trust for Public Land, The City of Chicago, The Chicago Park District, and The Chicago Department of Transportation. For a rail line that in the past seemed to divide people and neighborhoods on either side of a busy industrial zone, and after falling out of use became a site known for criminal and/or disorderly behavior, this rails-to-trails redevelopment offered a way to reverse these effect and turn the space into a central mode of pedestrian/bicyclist transportation and a valuable community-serving asset; however, this relatively rapid switch from undervalued to highly desired came with a pervasive increase in property values, and therefore economic gentrification pressure upon the existing residents of this historically

low-income area, which the city did make some efforts to mitigate with support for improvement of residential homes/buildings along the 606 route,

Officially opening in June of 2015, and later receiving the APA's 2016 National Planning Excellence Award for Urban Design, the 606 trail provides community amenities beyond its core functionality as an accessible and protected transportation infrastructure, including outdoor classroom spaces, local plant networks and gardens, a public observatory for stargazing, and various artistic programs, installations, and performance events (Bloomingdale, 84). Restoring and proudly showcasing an infrastructural artefact of sorts from previous industrial activity with the goals of "capitalizing on the variety of experiences created by its elevated structure and its separation from [automobile] traffic, and to preserve and enhance opportunities for connection to the natural world", the design of the trail uses the variety of heights among ground-level, raised trail sections, and its varying proximity to adjacent buildings to guide the development of a landscape that maximizes universal accessibility and a balance of active/leisurely enjoyment of the views and interconnected parks, on top of improving stormwater drainage and ecological continuity throughout the corridor (4, 31). Additionally, the city emphasized developing the Bloomingdale trail as a walkable corridor to connect otherwise disparate amenities like schools, retail and community centers, and transit lines with excellent use of informational signage, lane cues, separated pedestrian trails alongside the more streamlined bike-appropriate path at the trail's center, and pleasantly sloped access points along the trail-adjacent roads and at park areas (51).



Source: Different Views From The 606: Examining the Impacts of an Urban Greenway on Crime in Chicago fig.3

Trail-Oriented Development Case Study: West Rail Corridor

-Brownsville, TX



Community Health Center (Right) and Active Playground (Left)
Source: Brownsville West Rail Corridor Report, page 56

The proposed West Rail Corridor in Brownsville, TX is a currently-conceptual rails-to-trails redevelopment plan of another industrial railway that has fallen to disuse being jointly developed by the University of Texas, Austin, and the City of Brownsville, and is currently in the process of securing full funding, although smaller-scale private development activity has already heightened in anticipation of this large-scale trail-oriented development project.

In an area of the Rio Grande Valley where “70% of the adult population has at least one chronic condition, many correlated to high rates of overweight and obesity,” the need for improved walkability and opportunities for accessible exercise and health services that trail-oriented development can bring could not be more evident, and the proposed plan for the West Rail Trail is an excellent example of how a comprehensive application of the health and affordability opportunities presented by trail-oriented development might address these interconnected problems (Ledesma, 51). By emphasizing the development of localized loops of resources and opportunities, and supporting balanced growth of the communities that could sustainably grow around these amenity loops with multi-scale affordable housing and mixed-use developments, one can easily see how the provision of healthcare, employment, housing, community gardening, and commercial produce in tandem.

With the goal of retaining “historical, cultural, and ecological identity of [the] area, while creating a new celebrated place for Brownsville” to grow its economy and improve the health and quality of life of its residents, the plan also emphasizes the production of “complete

residential blocks” to bring diverse and accessible amenities to locals and ensure safe routes to individuals’ homes from the trail’s network of paths and plaza-like parks (64). With a plan to utilize the now-defunct railroad’s old switchyard as a large, open, public park and re-introduced wetland+bioswale for the area, ringed with affordable multi-scale housing above a street-level “core of commercial, retail, and education-oriented job opportunities,” this proposal for the design of the West Rail Trail touches on good practices for multi-use development to maximize the use of a trail-connected and shared open space among as self-sufficient and cohesive a neighborhood/community as possible, in a way that makes the environment more environmentally/ecologically healthy for people, nature, and agriculture alike (66-81). The Brownsville plan, while in an area with very different climate and socio-economic conditions than those experienced in the Bellevue area, should certainly be an inspiration for planning trail-oriented development with an explicit emphasis on maximizing the agglomerative and socially/physically healthy benefits of producing an environment capable of addressing the full spectrum of immediate residents’ needs at the walkably-local scale without conflicting the aesthetic and functional demands of park-like recreation nor multi-modal commuter transit.



Amenities focus productive use of space for healthy, active, and affordable livability
Source: Brownsville West Rail Corridor Report, page 51

Best Practices in Trail-Oriented Development

After a variety of case studies of the course of a quarter, we have been able to synthesize these studies into a list of best practices for trail-oriented development. While not every practice can apply to any establishment, these were some important takeaways when looking at how to successfully create trail oriented amenities along the ERC. these best practices are gathered from our own local examples as well as case studies from different regions around the country.

Accessibility

Before trailside amenities can even be used, they need to be accessible for cyclists, pedestrians and drivers. To borrow from Fremont Brewery, ramps and navigating a street is an important part of this. Users need to be able to reach different establishments if they're across the street safely without risk of harm. Part of this includes convenient crosswalks if necessary, signage, and easy on/off ramps from the trail. With these elements, it becomes far easier to increase usage of different amenities along the trail.

Lighting

Fundamentally, The idea of lighting seems simple, but can be a make or brake part of making sure the space is occupied. It can help to create a sense of place, but also a sense of safety. Lighting can be playful and ornamental to space and make it aesthetically pleasing to view. Lighting can also play a large role in creating a landmark. Amenities that have large neon signs are visible at all hours and can become a common meeting place for people along the trail. Another important part of lighting is the safety that it can bring. Lighting can help prevent

crime along the trail, and by shedding light onto the trail, these places can also be known as safe spots.

Art

Using art along a trail can help amenities distinguish themselves from other amenities offered along a trail. Blank sides of buildings can be utilized for murals and other forms of art installations. Borrowing from Hale's Ales, they have a bright, colorful, and welcoming mural on the back of their building which draws attention from the Burke Gilman Trail. Public art is a way businesses can get the community involved in creating an asset that can be shared by all. In context of the ERC, there are many blank building sides that could be transformed into art pieces that would be viewed by many people.

Seperation

Part of creating successful amenity is making sure that users enjoy the space they are in. In order to do this, it is important that users feel secluded enough away from the trail so that they have a certain amount of intimacy. Taking inspiration from Fremont brewery, they use greenery to create seperation from the street. Chainline is interesting where the space for patrons is elevated off the trail which take them off of the trail. By making a distinction between the trail and the amenities space, it makes for a more enticing experience of the trail and the development along it.

Safety in Trail Design

Controlling the pace and scale of bicycle and foot-traffic between the main trail and the connecting community amenities can greatly improve the sense of physical safety for slower-moving, physically disabled, and youth visitors. Providing protected lanes or pedestrian separation with landscape features like short vegetation barriers to help manage commuter speeds and maximize the inclusive usage of trail spaces can greatly improve pedestrian

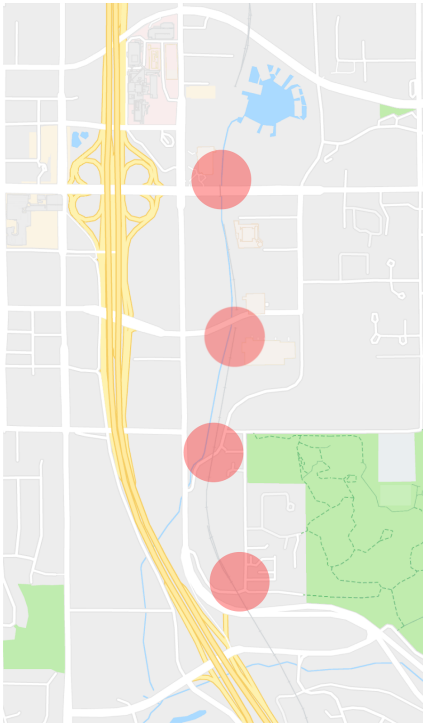
feelings of physical safety on the trail. Incorporating a bridge/deck or other flexible style of connection to the trail also grants individual parks, storefronts, and neighborhood connector trails the opportunity to optimize accessibility as appropriate (such as slowing traffic for childrens' school routes or perhaps a brewery creating a more seamless transition into a beer garden patio from the trail). Maintaining a well-organized hierarchy of lanes for the expected speeds among different modes of trail use allows for efficient transportation-use without sacrificing the kind of flexibility needed for diverse mixed-use development or the linear space needed for the possibility of re-introducing rail service through the corridor without substantive deconstruction.

Encouraging Healthy Lifestyles

Including permitting vendors of fresh produce near transit hubs and community assets, developing a local food economy through a regular farmer's market, creating exercise facilities for a variety of age ranges, supporting the development of community gardens, introducing health-oriented services like physical therapy and nutritionist offices, and incentivizing grocers and retail establishments to prioritize supporting healthy lifestyles. The more aspects of a healthy lifestyle that a resident can easily link together into a loop of amenities, accessible by trail routes, the better.

SWOT Analysis of Wilburton and the ERC

Implementing a pedestrian and bike path within a community has many benefits, however, in order for the development project to be wholesome and intentional, it is important to look at the negative effects of these trails. Through performing a strength, weakness, opportunity, and threat analysis, also known as a SWOT analysis, a wholesome understanding of how the ERC will affect the Wilburton community can be extracted. The SWOT analysis below is reflection on the integration of the ERC through the Wilburton neighborhood. Selecting four locations along the Wilburton segment to focus on, we have highlighted their impact on the trail through site specific location. Each of these locations have varying characteristics, providing overview on the primarily residential and office area in Southern Wilburton and more commercial up north.



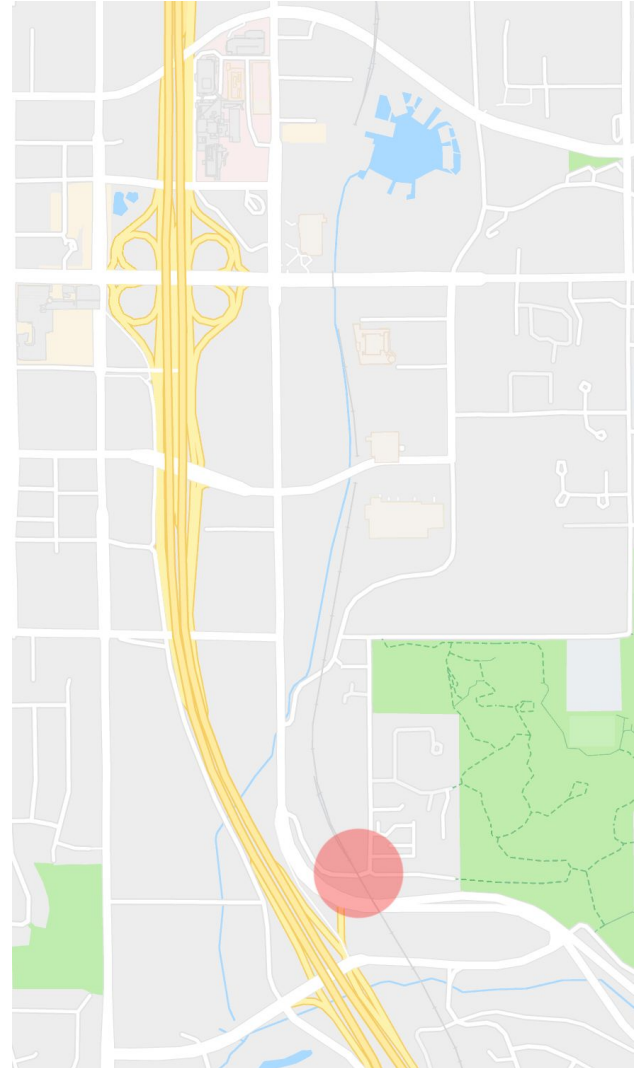
<p>Strengths</p>	<p>Weaknesses</p>
<ul style="list-style-type: none"> ● Existing path to build on ● Nice neighborhood & community ● Existing businesses provide economic benefits 	<ul style="list-style-type: none"> ● Car-dependent area ● Major roads and crossings create surrounding “dead zones”, lacking activity, vegetation, and green space ● Not very walkable/bikeable ● Transit access minimal
<p style="text-align: center;">Opportunities</p>	<p style="text-align: center;">Threats</p>
<ul style="list-style-type: none"> ● Trail brings potential customers ● New schools could be sited close ● Traffic improvements planned ● Ecology can be restored ● Some drivers will take trail: less traffic for others, cleaner for all ● Zoning often already in place 	<ul style="list-style-type: none"> ● Increased car-bike, car-ped, and bike-ped interaction, and traffic safety may not improve ● High-traffic areas are unpleasant to stay in rather than pass through ● It’s difficult to carry very large volumes of goods by foot or bike ● Gentrification and displacement in response to rising property values

Areas of Interests:

Trestle, SE 5th street

This area in south Wilburton provides a safe and quiet place to live with some greenery but is difficult to travel to and from by any way other than automobile.

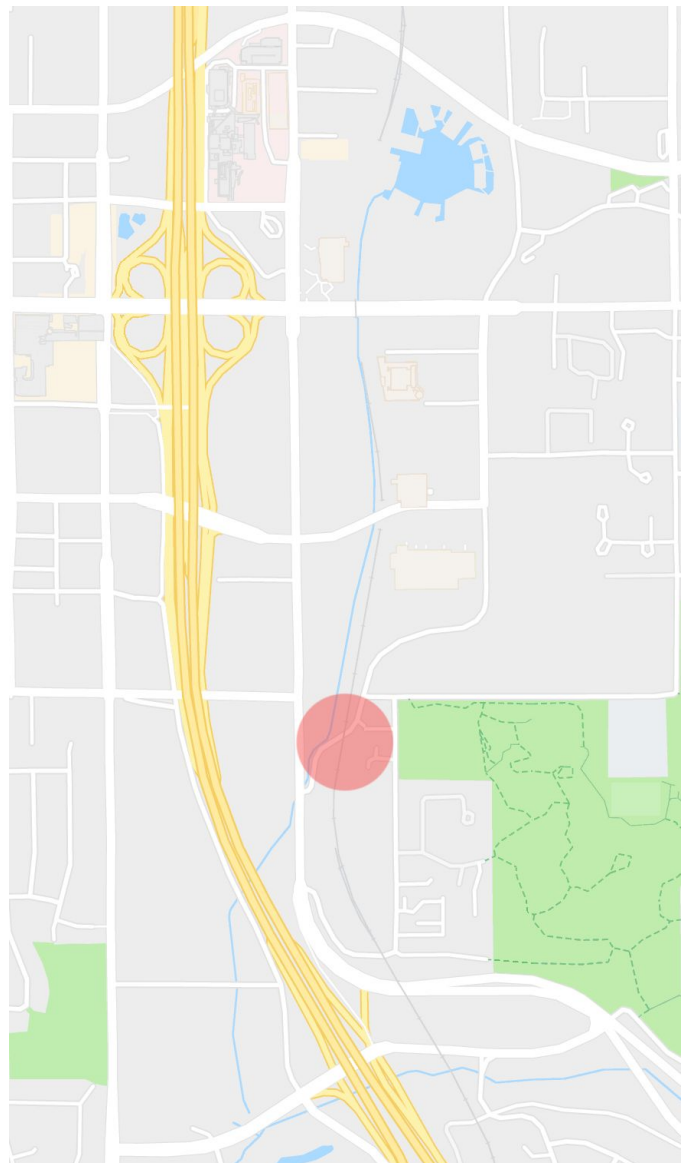
The Wilburton Trestle bridge will be a wonderful asset to the community when it opens to pedestrians and cyclists as part of the new trail, and this offers an opportunity to strengthen the neighborhood with new businesses, schools, and even ecological restoration, and improve traffic safety while potentially working with Metro to add currently lacking bus service. (Regardless, the trail provides a way to more quickly and safely walk/bike to the closest connection, a 271 stop). The new intersection it creates, however, is at an odd angle and risks potential collisions between cars, bicyclists, and pedestrians if safety worsens, and new construction will require digging in areas with underground infrastructure like fiber and sewage lines as well as negotiating around overhead power cables. There is also the possibility that this area far from any existing business district may not attract sufficient customers to sustain new small businesses here.



Strengths	Weaknesses
<ul style="list-style-type: none"> ● Nice neighborhood & community <ul style="list-style-type: none"> ○ Some greenery present ● Speed limit only 25 mph (hopefully in practice as well) ● Parking available in right-of-way ● Existing office space provides jobs, reduces traffic elsewhere 	<ul style="list-style-type: none"> ● Car-dependent area ● Significant “dead zone” surrounding planned ERC path ● No designated crossing ● Intersection somewhat non-perpendicular - safety risk ● Only traffic control is stop signs ~100ft away on each site ● No sidewalks ● No nearby transit
Opportunities	Threats
<ul style="list-style-type: none"> ● Already office-zoned and underdeveloped ● Bellevue School District growing quickly, new schools could eventually be built here, allowing students to commute by foot or bike ● Traffic calming, restriping, resigning planned - safety may improve, and sidewalks may be coming ● Trestle experience (view etc.) attract people who can patronize new businesses, use new parks or housing ● Could add transit ● Can add non-sightblocking vegetation to restore ecology and add liveliness 	<ul style="list-style-type: none"> ● Overhead power cables, underground fiber lines, sewerage all pose small challenges to construction ● Traffic safety may worsen <ul style="list-style-type: none"> ○ Non-perpendicular crossing raises risk ○ 25 mph can be a high risk if no designated crossing added ○ Higher pedestrian-bike, car-bike, and car-pedestrian interaction ○ Trail crosses sidewalk ○ A single accident could cause a publicity shadow that dissuaded bike/ped use for some time ● Area may not attract enough people to sustain new businesses <ul style="list-style-type: none"> ○ Drivers avoiding area could reduce car visits more than the rise in other modes, reducing overall potential customers ● Soaring property values can cause economic displacement of residents, offices

Road Crossing of the ERC and SE 1st St.

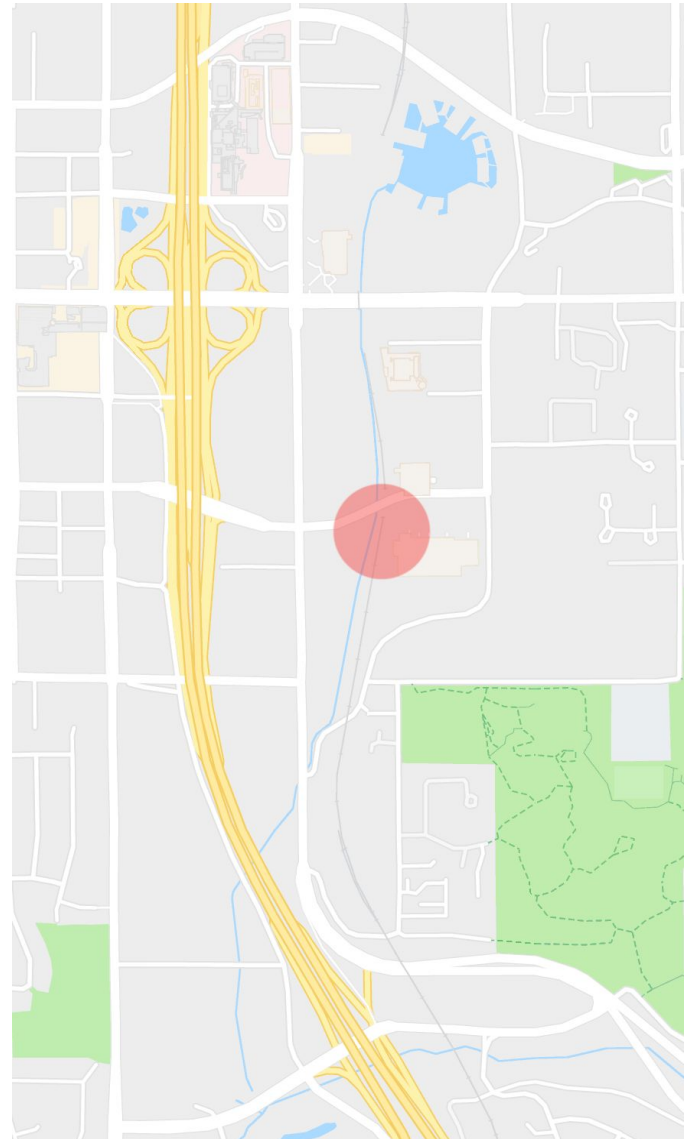
Similar to the SE 5th Street crossing, this residential section of central Wilburton is an comfortable and established neighborhood, and somewhat inaccessible without a motor vehicle despite a #271 bus stop, but offering amenities like the Bellevue Botanical Garden and Wilburton Hill Park. This accessibility will be improved by the new trail and can be a new urban village of sorts as a gateway to the green spaces. It can also be a place to start new shops and outlet stores, as well as create new schools - useful since the district offices are right across the gardens. Also like the SE 5th St. crossing, however, the ERC adds an intersection that is strongly non-perpendicular and also on a steep hill where downward cars routinely exceed the speed limit, adding to safety risks resulting from the increased traffic and interactions between cars, bicyclists, and pedestrians. Finally, fiber optic cables may present an obstruction to some construction, and perhaps more importantly, it's not a guarantee that a new businesses will succeed in an existing commercial area, let alone a new one.



Strengths	Weaknesses
<ul style="list-style-type: none"> ● Nice neighborhood & community ● Beautiful garden attracts visitors ● Green space adjacent to intersection is [figure out how to talk about this & re. 5th St] ● Existing businesses provide economic benefits ● Transit connection to 271 	<ul style="list-style-type: none"> ● Car-dependent area <ul style="list-style-type: none"> ○ Sidewalks are narrow ○ No designated crossing, nearest is nearest is a 400ft away ● Busy arterial, & 25 mph posted but downhill drivers routinely go faster, 17% grade is intense ● What vegetation exists is visually obstructive ● Intersection highly non-perpendicular - safety risk ● No parking, inhibiting establishment of businesses ● 271 stop is 400 feet away, and more than twice that if stairs inaccessible
Opportunities	Threats
<ul style="list-style-type: none"> ● Surrounding zoning is retail, multifamily, and office ● Bellevue School District growing quickly, new school(s) could be built here and students can commute by bike ● Garden and other amenities attract people who could patronize new businesses, use new parks or housing ● Staircase above and below the trail under construction just north of the SE 1st St. crossing ● Traffic calming & other alterations planned - more visibility, stop control, resigning, activatable warning, even reconstructed geometrics ● Can add non-sightblocking vegetation to restore ecology and add liveliness 	<ul style="list-style-type: none"> ● Underground fiber optic lines pose small challenge to construction ● Steep grade may disincentivize trail-users ● Traffic safety may worsen <ul style="list-style-type: none"> ○ Acute angle crossing cannot be eliminated, must be managed ○ 30mph is a high risk if no designated crossing added ○ Higher pedestrian-bike, car-bike, and car-pedestrian interaction ○ Trail crosses sidewalk ○ A single accident could cause a publicity shadow that dissuaded bike/ped use for some time ● Area may not attract enough people to sustain new businesses <ul style="list-style-type: none"> ○ Drivers avoiding area could reduce car visits more than the rise in other modes, reducing overall potential customers

ERC crossing NE 4th St.

The NE 4th St intersection/area is surrounded by existing businesses, such as Home Depot, Best Buy, and REI, with sizable parking lots intended for car travelers. The slope of the street is quick enough to provide a great view but gradual enough to be relatively safe. While 271 bus is medium-distance walk away on 116th Ave NE, it is relatively inconvenient to reach this part of the neighborhood in any other way. Once again, the new trail can change this, but it is also an established commercial area so it may be safer to open a business here - that is, if the market isn't oversaturated with other businesses to compete with. The future Wilburton Village development between 116th Ave. NE, NE 4th St., and the ERC will contain several large businesses that can make themselves accessible to trail users. The



“intersection” formed by the trail is across a busy street, but one which is perpendicular and therefore safer, and because it's busy the traffic safety improvements will be more significant to make up for it, though the same concerns about the reality and perception of potential accidents apply. It is only a five minute bike ride north to the coming Wilburton Light Rail station that it's a short ERC trip to transfer to and from the Link light rail, this one is particularly close though not adjacent. Several businesses here have the potential to increase or transfer their customer base by adding an additional door or equivalent facing the trail. A buried gas line provides the only infrastructure obstacle. Lastly, some ecological restoration is possible by adding to the growing

green corridor around the river that parallels the trail, offering an oasis of clear air and calm in a often hot, loud, and thus stressing area for pedestrians not quickly in transit to somewhere else. It won't take much to make this a place to hang out in, as well as a place to go through.

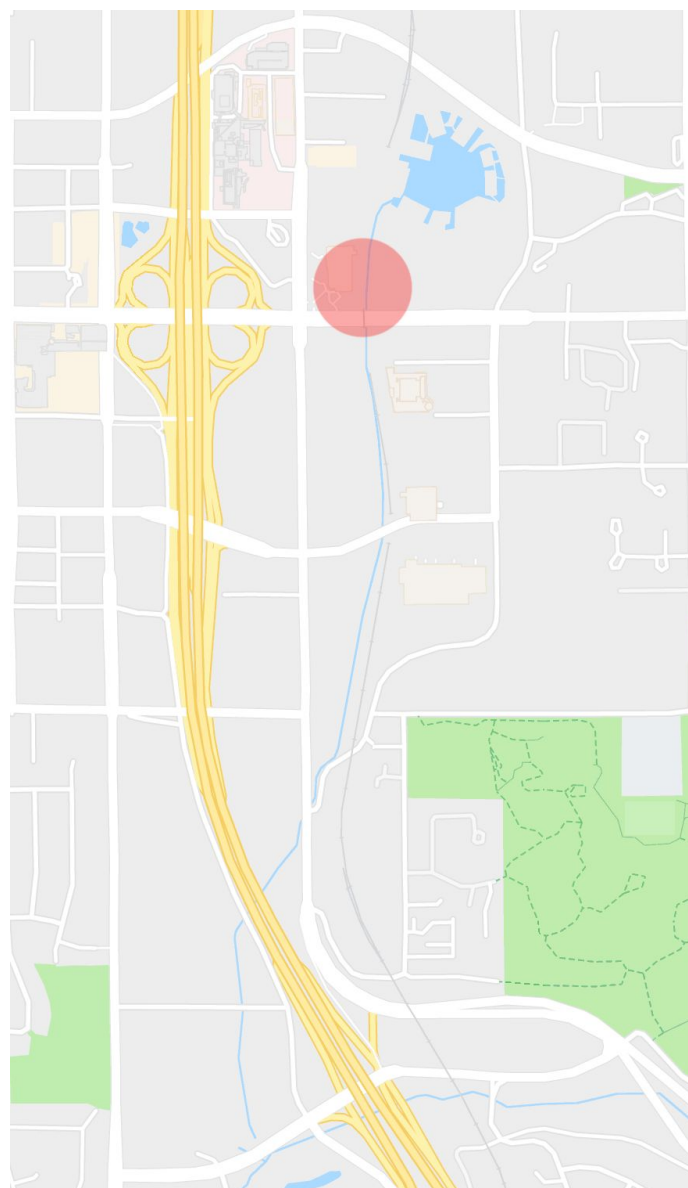
Strengths	Weaknesses
<ul style="list-style-type: none"> ● Nice neighborhood & community ● Existing businesses provide economic benefits ● Beautiful view ● Street at safer angle and smoother grade overall than other intersections ● Transit connection to 271 	<ul style="list-style-type: none"> ● High-traffic arterial in car-dependent area ● Could use more green space ● Grade not much directly adjacent, but rather serious a short distance away on both sides ● Road and surroundings form large “dead zone”, including lack of vegetation and green space ● Requires major traffic alteration - no crossing, and nearest control is a signal 600 feet away ● Reaching bus stop requires >1000 feet of walking
Opportunities	Threats
<ul style="list-style-type: none"> ● Existing consumer base can also patronize trail-oriented businesses, new parks or housing ● Wilburton Village housing/commercial under construction offers large potential number of trail users ● Beautiful view is even better on a bike ● Bellevue School District growing quickly, new school(s) could be built and students can commute by foot or bike ● Traffic calming possible ● T-ROD can turn some car trips into trail trips, reducing queuing and associated traffic jams ● Can add non-sightblocking vegetation to restore ecology and add liveliness ● Metro can add closer buses to better connect with ERC and Link ● Can add non-sightblocking vegetation to restore ecology and add liveliness 	<ul style="list-style-type: none"> ● It's difficult to carry most things people purchase at Home Depot, for example, on foot or especially bike. Similar issue sometimes with REI, or Best Buy. A sturdy bike bag and bag rack can easily change this but not for very large objects ● Buried gas line is a challenge to construction ● Heavy traffic - noise, smell/air quality, safety, lack of green space - make biking, walking, and being outside unpleasant, non-drivers may avoid area ● Traffic safety may worsen <ul style="list-style-type: none"> ○ Higher pedestrian-bike interaction could raise collision risk - and trail crosses sidewalk ○ Drivers avoiding area could reduce car visits more than the rise in other modes, reducing overall business ○ A single accident could cause a publicity shadow that dissuaded bike/ped use for some time ○ Wide crossing is two lanes each way plus turn lane ○ Crossing remains a wide 80ft, three lanes each way ○ 30mph is a high risk if no designated crossing added ● Perhaps not enough new customers to open new businesses <ul style="list-style-type: none"> ○ Drivers avoiding area could reduce car visits more than the rise in other modes, reducing overall shopping

ERC North of Wilburton Light Rail Station (above NE 8th St.)

The NE 8th St section of the ERC has much more in common with the NE 4th St one than the other two aforementioned intersections.

Surrounding it is a commercial district including food and grocery, gas stations, car-related enterprises, and even cannabis. A large amount of land is occupied by open-air parking lots. The street is a flat one and at an exact right angle to the trail. Unlike any intersection yet examined, this one has a bus line right on it - the Rapid Ride B Line, which takes NE 8th St. all the way from downtown well across the neighborhoods east of Wilburton. Yet there are certainly residents, visitors, and potential customers whom would through the ERC and because of it will be encouraged to come to the area. Further, this is the exact location where the Wilburton Light Rail station will open in just 6 years and this is an opportunity to make this block

a true nexus. As always, it's critical that traffic safety be maintained, and with this in mind, green space can be expanded outward from the river here as well, so long as it does not impair visibility. If that succeeds in making this a safe and attractive place to be, businesses and others will benefit from working with the city to provide access from the trail to their facilities, creating a second entrance if necessary.



Strengths	Weaknesses
<ul style="list-style-type: none"> ● Nice neighborhood & community ● Existing businesses provide economic benefits - Whole foods, Uwajimaya ● Bus stop for B Line rapid ride ● Crossing is perpendicular and therefore safety 	<ul style="list-style-type: none"> ● High-traffic arterial in car-dependent area ● Again requires major traffic alteration, with no crossing, and nearest traffic control is a signal 400 ft away ● Could use more green space ● Queuing nearby blocks crossing (by cars) ● Road and surroundings form large “dead zone”, including lack of vegetation and green space
Opportunities	Threats
<ul style="list-style-type: none"> ● Existing consumer base can also patronize trail-oriented businesses, new parks or housing ● Safer, lower grade than other intersections ● B line connection allows transfer to & from trail here, likewise with coming light rail ● Parking shortage is incentive for drivers to consider bike or ped travel, and ● Bellevue School District growing quickly, new school(s) could be built here and students can commute by bike ● Traffic calming & other alterations ● Garden and other amenities attract people who could patronize new businesses, use new parks or housing ● T-ROD can shift car travel into trail, reducing queuing and associated traffic jams ● Can add vegetation to restore ecology and add liveliness 	<ul style="list-style-type: none"> ● It can be difficult to carry groceries intermediate distances by foot or bike. A sturdy bike bag and bag rack can easily change this but not for very large loads ● Heavy traffic - noise, smell/air quality, safety, lack of green space - make biking, walking, and being outside unpleasant, non-drivers may avoid area ● Buried fiber-optic lines are a challenge to construction ● Perhaps not enough new customers to open new businesses <ul style="list-style-type: none"> ○ Drivers avoiding area could reduce car visits more than the rise in other modes, reducing overall shopping ● Traffic safety could worsen <ul style="list-style-type: none"> ○ Higher pedestrian-bike, car-bike, and car-pedestrian interaction raises risk ○ A single accident could cause a publicity shadow that dissuaded bike/ped use for some time ○ Crossing remains a wide 80ft, three lanes each way ○ 30mph is a high risk if no designated crossing added

Recommendations:

Tactical Urbanism: 1 day - 1 year

Tactical urbanism is a short term way of initiating long term change in an area. Communities often feel that there is an aspect of an area that needs changing, or could be repurposed, and they use grass roots efforts to fix it. Sometimes tactical urbanism can take the form of a larger government organization creating an event that makes better use of a space. In the context of the ERC, there are many opportunities to utilize strategies in tactical urbanism to reinvigorate the trail and make it more inviting to the public as well as bolster awareness.

The first strategy that comes to mind is the use of public art installations. As the trail meanders its way through different parts of Bellevue, there are a wide variety of environments that it runs through. There are many buildings whose backs are towards the trail. While it may not make sense for a business to open up to the store, it could be a great opportunity for a local artist to create a visual for commuters of the trail to enjoy as the walk, bike, or run past. By making some of these areas more decorated and fun to go through, it would bring even more people to the trail.

Another way to bring the trail into the spotlight could be events planned by local organizations. An example of this could be a 5k run that utilizes the ERC and the botanical garden nearby. People in the northwest have always loved 5k's and by having one to celebrate the existence of the trail and how it integrates with the city. This could also be a great opportunity to bring in businesses along the trail for sponsors and making events more lively. Events such as this are another way that the ERC could become a staple for transportation throughout Bellevue.

An important part of making sure that the ERC is well received by the communities it runs through and the businesses that are along it is making sure that there is proper signage. While a simple aspect of any mode of transportation is the signage, it is also crucial to the success of it, because it's the main way that people can understand the different ways to use the trail. Having signs made by the communities for the communities would be a great example of tactical urbanism that both engages the surrounding communities and helps to make the trail a more usable space for the public.

The segment of the ERC in the Wilburton area that runs on the side the Home Depot presents an enormous opportunity to create a space that is helpful to both patrons and workers alike. Many people use that as a lunch space because it's outside and has a great view of the city of Bellevue. Recently there has been a surge of food truck popularity, and it could be an incredible place for a little food truck plaza that is open to people along the trail and the workers in that area on their lunch breaks. By bringing in food trucks it could help activate this space and be an economic opportunity for local business. This would also be an idea that could be piloted for a day or two to gather a vision for how successful it will be.







Adaptive Reuse: 1-5 years

Adaptive reuse is a way of creating trailside amenities that use existing infrastructure along the trail. Another way of thinking about it is as repurposing. Projects at this scale tend to have 1-5 year implementations and aren't as expensive as long term developments. It can be most beneficial for businesses along the trail or for bringing in new businesses as trailside amenities. As there are existing buildings along the ERC, Wilburton has potential to renovate these facilities, making them trail accessible. Another aspect to adaptive reuse is creating multiple doors for an establishment. This means that while businesses have doors facing the road and also doors facing the trail. Due to the varying width of the ERC, it could be considered difficult to create doors to the trail, but these businesses in close proximity are what makes for successful trail oriented development. By looking at our GIS maps, we were able to locate buildings in optimal locations along the trail for redevelopment in the Wilburton area. Through encouraging integration between the trail and local developments, clearly designated areas for loading and unloading provide a safe way to get from point A to B.

Site Recommendations:

In this figure, a rough sketch of what could potentially develop on NE 4th St. near Home Depot. There is land here that is under utilized and could better serve the emerging Wilburton area. Going top to bottom, the first part off the side could be a recreational area along the side of the trail for people to go off to the side and enjoy the area. It could help make the trail more family friendly. The light blue spaces running down the trail represent opportunities for place making with installations of picnic tables or benches. All of the green arrows represent ways to access traiside amenities while the white arrows represent ways to access the ERC. the other aspect to this area is encouraging stores create doors facing the ERC. These are some possible ways that an area could use adaptive reuse strategies to utilize the space around NE 4th St.



- | | | | |
|--|-----------------|---|------------|
|  | Playground |  | Parking |
|  | Mixed-use Space |  | Bike Racks |
|  | Recreation |  | Restaurant |

Long-Term Development: 5-15 years

Long-term development looks past the current zoning regulations a city has and predicts what the area will look like in the future. By observing the planning, economic, and societal trends in a specific area, we are able to form an idea of what the community will require to provide sustainable growth and opportunity.

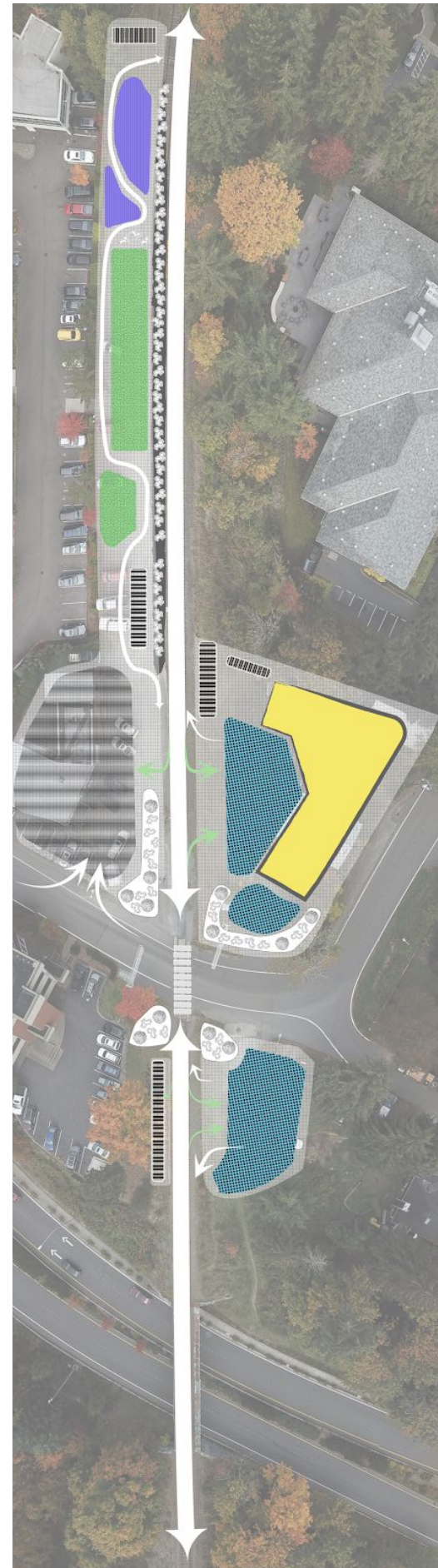
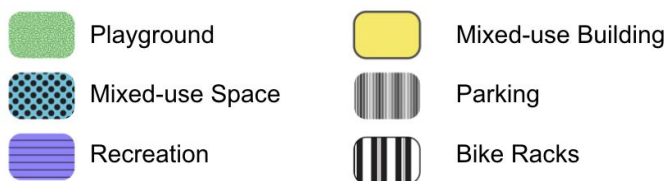
The growth of Bellevue has caused the Wilburton area to grow as well, causing the land values within this neighborhood to inflate. Looking at the growth pattern of Wilburton, it is safe to say rezoning is necessary to sustainable neighborhood. Currently, Wilburton accommodates a variety of facilities, though it is primarily commercial, office, and residential zoned areas. While developers in the past strictly built buildings for a single purpose, it is time to update this dated form of development. Through integrating mixed-use buildings into a neighborhood, the local economy has a better chance to grow in places that would otherwise be not possible. Looking 5-15 years down the line, Wilburton will likely look very different, along with the way people interact with the trail and local businesses. As economies adapt to societal needs, it is likely business prosperity will come from convenient location and fulfilling the everyday needs of people. This can be done in many ways, such as having residential units on top of retail spaces, or having restaurants on the main floor with office space above. Creating intentional spaces that become part of the daily routine should be the goal for business developers.

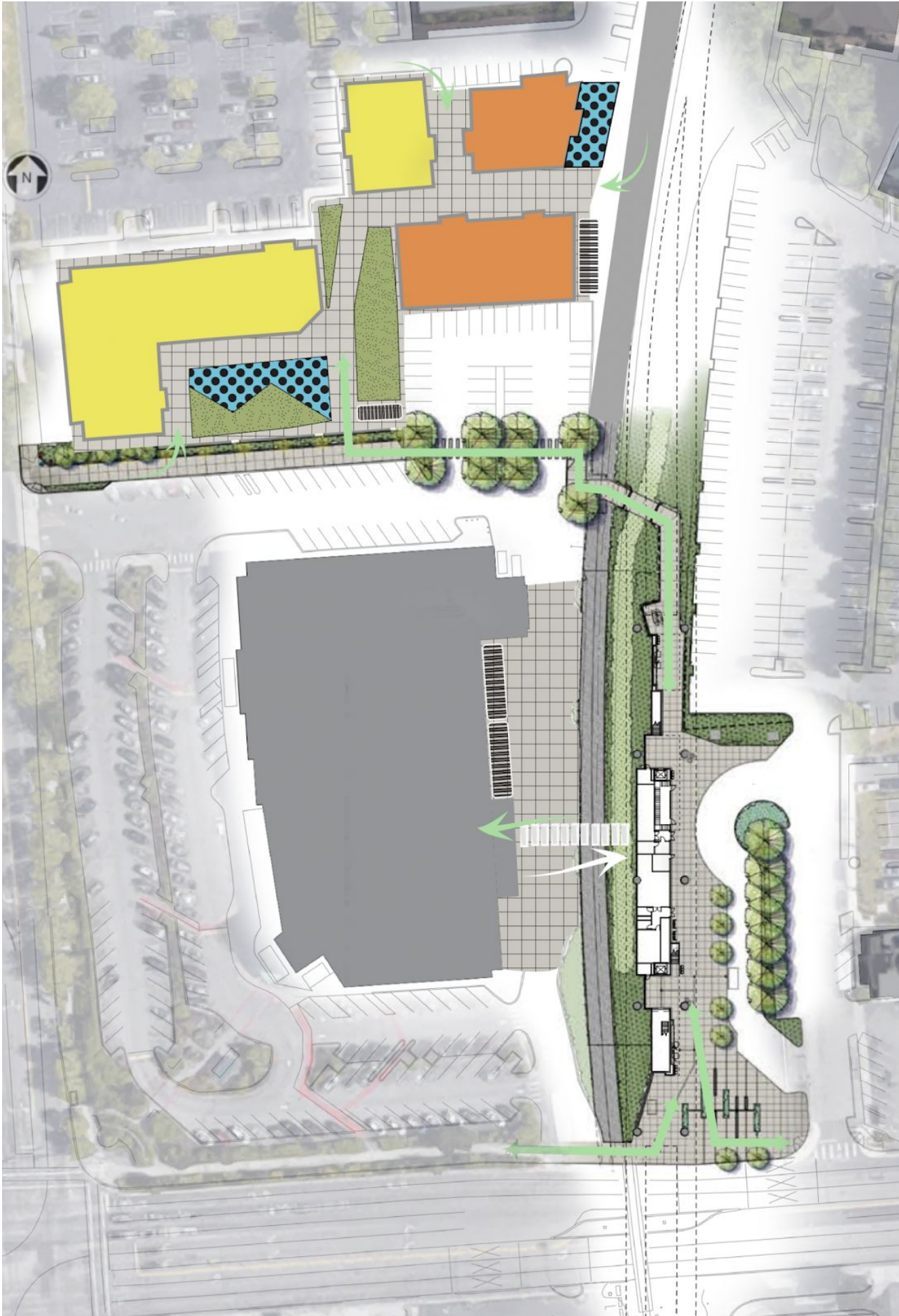
Through the implementation of mixed-use spaces, the Wilburton area along the ERC can achieve greater economic diversity, inclusivity, and accessibility. In addition to the rezoning and redevelopment of the area, the human and natural experience must be taken in account and facilitated through placemaking techniques. While the ERC serves as the arterial trail for pedestrian and bicyclists on the Eastside, it is important there remains intimacy in the areas surrounding this large trail system. Various methods are used to promote placemaking including winding trail networks adjacent to the trail, off-path features, and increased ecology.

These winding trails decrease the amount of traffic on the main path, allowing users to meander at their own place. Off-path features, company-sponsored recreational sites provide provide trail side unique experiences, encouraging a high retention rate among trail users. Some examples of these features may include a pump track sponsored by REI, or a vertical garden maintained by the botanical garden. Finally, providing spaces with intentional ecology such as pocket parks and community gardens will improve the human to trail connection, resonating the health benefits within the trail users.

In order to have better cohesion between the trail and local economy, we recommend business begin to open doors along this urban path. Through building facilities open to, and accessible from the trail, developments will be steps away from one of the neighborhood's greatest assets.

The diagram to the right provides a visual representation of what long-term development would look like in Wilburton. Using the Tressel as an example for long-term development, this public asset should facilitate a safe and healthy lifestyle. Using the space adjacent to the trail for recreational activity, users play and workout equipment provides. The arrows show represent the movement of pedestrians and cyclists on and off the trail.





- mixed-use Building
- parking
- bike Racks
- restaurant

(Image created using overlays provided by Sound Transit, google maps, and the UW)

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