



# **Urban Design and Land Use Concepts for Downtown Tigard**

**Spring 2018 • Urban Design Workshop • USP 475/575  
School of Urban Studies and Planning • Portland State University**

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## Acknowledgements

The authors wish to acknowledge and thank TriMet and the city of Tigard, and the many people who dedicated their time to provide us with direction and feedback.

Jeb Doran, Senior Project Manager, TriMet

Gary Pagenstecher, Associate Planner, City of Tigard

Meriam Rahali, urban design professional

The team at SERA Architects, Flow Mapping workshop and other class session hosts

TriMet, Tigard, and UO staff, site visit support

Naomi Adiv and Anna Goodman, Portland State University faculty

Final presentation reviewers: Thuy Tu, Sean Batty (TriMet), Hajo Neis (UO), Michael Mehaffy, Wilf Pinfeld, Ben Bortolazzo (Otak), Brook Mueller (UO), Charles Kelley, David Berniker (City of Gresham), and Josh Cabot (SERA Architects)

## **About SCI**

The Sustainable Cities Initiative (SCI) is a cross-disciplinary organization at the University of Oregon that promotes education, service, public outreach, and research on the design and development of sustainable cities. We are redefining higher education for the public good and catalyzing community change toward sustainability. Our work addresses sustainability at multiple scales and emerges from the conviction that creating the sustainable city cannot happen within any single discipline. SCI is grounded in cross-disciplinary engagement as the key strategy for improving community sustainability. Our work connects student energy, faculty experience, and community needs to produce innovative, tangible solutions for the creation of a sustainable society.

## **About SCYP**

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

## **SCI Directors and Staff**

Marc Schlossberg, SCI Co-Director and Professor of Planning, Public Policy, and Management, University of Oregon

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## About TriMet

The Tri-County Metropolitan Transportation District of Oregon was created by the Oregon Legislature in 1969 to operate and oversee mass transit in the Portland Metropolitan region. This public entity was formed by the legislature as a municipal corporation to replace the multiple private interest mass transit companies that previously operated in Multnomah County, Clackamas County, and Washington County; the counties that make up TriMet.

In addition to operating bus lines, light rail, and paratransit in the defined Tri-Metropolitan district, TriMet also connects to external mass transit services to provide wider blanket coverage for the region. TriMet's nationally recognized transit system provides more than 100 million rides annually, and carries 45% of rush hour commuters going into the downtown Portland area. TriMet not only moves people, but helps build sustainable cities by improving public health; creating vibrant, walkable communities; supporting economic growth; and working to enhance the region's livability.

Several civic leaders have been highlighted as key Figures in the creation, establishment, and ultimate success of TriMet. Governor Tom McCall is credited with the initial call for the creation of the public corporation; other key contributors include Congressman Earl Blumenauer, Rick Gustafson, Dick Feeney, and Mayor Neil Goldschmidt. All were instrumental in shaping the organization itself, as well as the land use, civic development, and transformation policies that make TriMet the success that it is today.

The vision and efforts of these individuals and countless others have borne fruit. Recently, TriMet celebrated the second anniversary of the opening of its most recent light rail line. Since its inauguration the 7.3-mile MAX Orange Line has experienced continued growth, having a six percent year-to-year increase in ridership. Illustrating the holistic approach that has been a part of TriMet from its inception, there have been wider community benefits such as a positive impact on employment and a focus on sustainable practices such as bio-swales, eco-roofs, a first-in-the-nation eco-track segment, solar paneling, and regenerative energy systems.

TriMet is a key partner in the region's Southwest Corridor Plan and Shared Investment Strategy. Eleven partner agencies are participating in planning for a new 12-mile light rail line in southwest Portland and southeast Washington County that will also include bicycle, pedestrian, and roadway projects to improve safety and access to light rail stations. Southwest Corridor stakeholders include Metro (the regional government), Washington County, Oregon Department of Transportation, and the cities of Beaverton, Durham, King City, Portland, Sherwood, Tigard, and Tualatin. This collaborative approach strives to align local, regional, and state policies and investments in the Corridor, and will implement and support adopted regional and local plans. These initiatives and outcomes from participation with the UO's Sustainable City Year Program will help develop ideas that are cost effective to build and operate, provide safe and convenient access, and achieve sustainability goals while supporting the corridor's projected growth in population and employment.

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*This report represents original student work and recommendations prepared by students in the University of Oregon's Sustainable City Year Program for TriMet's Southwest Corridor project. Text and images contained in this report may not be used without permission from the University of Oregon.*

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## Executive Summary

This report describes a new vision for the city of Tigard; one that can realize the city's goals in the downtown area and could conceivably chart a new path for growth centered around the possibility of light rail transit. The students participating in the PSU Urban Design Workshop were encouraged to think radically and imaginatively in order to see beyond current trends in suburban development. To this end, students identified contextual forces within the downtown Tigard area, on both on a regional level and on a broader societal scale in general. These forces, which are detailed below could be coupled with the city's goals and inspiration from planning theory to yield a set of defining principles that we believe could inspire a new standard of suburban livability.

Once established, the students refined their principles in an iterative process of data gathering, observation, research, mapping, and sketching. That exercise resulted in the creation of resource flow diagrams and the development of a new land use framework for downtown Tigard. The land use concept proposes an innovative model of mixed-use zoning concepts, density via a massing gradient, and a reimagining of street design and natural spaces within the existing urban fabric. The downtown was divided into five districts with varying design elements and uses. Using these concepts for the entire downtown, students developed individual sub-area concepts exploring the design of specific elements of the study area. Two students chose to study downtown districts, which they called "The Innovation District" and the "Red Rock Creek District," respectively. Additionally, a concept was developed for the integration of natural spaces, which was subsequently named "Green Fingers" by the students. Finally, a new concept for street development was proposed for downtown Tigard that catered to pedestrians above all other modes of transportation.

Subarea concepts, in conjunction with the land use framework developed for the downtown area, were chosen for their potential for future development in area after the planned light rail transit project is developed. The students assumed that public investment could be leveraged to develop a livable, walkable, and sustainable future for Tigard if city officials could take action on a new pattern of development. This would require significant public and private investment; however, by developing a broader framework for growth, piecemeal investments could eventually yield the visionary outcomes set forth in this report.

# Introduction



Figure 1: Annotated Map of downtown Tigard showing existing conditions, habitat areas, and key locations.



## **Tigard in Context: The History of Tigard**

The city of Tigard was officially incorporated in 1961, but settlement in the area can be traced back thousands of years. Before European and American colonization, the Kalapuya and Tualatin Native American tribes settled in the area. The rich and fertile soil and accessibility to river systems helped support continued development over time. Native peoples lived sustainably in the Tualatin Valley utilizing the area's plentiful natural resources for thousands of years before European contact. This report acknowledges the original inhabitants of these ancestral lands as a reminder that deep sustainability is not necessarily a new approach to a harmonious relationship between natural systems and human development, but rather a practice with millennia of precedence.

European-American settlement in the Tigard area can be traced to the Tigard family, who first began to occupy the area that is now considered downtown in 1852. The Tigard family was instrumental in establishing the foundational roots of what would grow to become the twelfth largest city in Oregon. By the early twentieth century, Tigardville (as it was originally named), was a modest farming community centered around the historic main street. With the arrival of the Oregon Electric Railway in 1910, the town began an era of sustained population growth focused primarily on the downtown area. This rail connection to the Portland region and cities throughout the Willamette Valley served as a catalyst of growth; and while passenger service ended during the start of the Great Depression, this initial investment in rail transportation infrastructure remains a defining moment in the city's history.

The era of automobility brought a new wave of development to Tigard. During the mid-century and up to recent years, larger suburban homes and large 'big-box' retail sprung up throughout Washington County. This pattern of development was specifically designed around the automobile, with large stretches between homes, places of work, shopping destinations, and places of leisure and recreation. Concurrently, the population of Tigard grew rapidly during this period—from an estimated 1,000 residents, at the time the city was incorporated in 1961, to nearly 50,000 by the 2010 US Census.

Along with population growth, concerns about how to manage future population projections in the southwest edge of the greater Portland region grew. In 2009, Metro published the High Capacity Transit System Plan and identified the "Southwest Corridor" as a priority route for investment. Over the past decade, the plan has been refined, and is now touted as part of regional investment strategy in transit and transit-oriented development. Utilizing portions of the old Oregon Electric Railway right-of-way, Metro and TriMet have developed a plan to bring commuter light rail directly into the area surrounding downtown historic Tigard. A major investment in transit such as this would connect Tigard to Portland via a high capacity rail service, and thus present a major opportunity to reconsider an intentional development pattern and urban form in Tigard. These planned investments occur concurrently with efforts by the city of Tigard to reimagine the future of the city. In 2014, the city of Tigard released a strategic vision to embrace walkability and choose a distinctly walkable and urban future. The students involved in this report, believe this is significant.

## **Tigard's Vision and Goals**

In 2012, when the city of Tigard began the process of developing a new long range strategic plan, a task force took on the challenge of visioning for the future of the city. That visioning coalesced around the idea that Tigard could become "a healthy, walkable and interconnected community for all." (City of Tigard, 2014) In 2014, Tigard's city council adopted a vision that Tigard become "The most walkable community in the Pacific Northwest where people of all

ages and abilities enjoy healthy and interconnected lives.” (City of Tigard, 2014) This was, and remains, an ambitious goal for a city that developed primarily in a suburban, automobile-oriented, way. However, the commitment to this vision demonstrates a political will to change that development pattern in this community.

This vision of becoming the most walkable community in the Pacific Northwest naturally became a guiding principle for the PSU Urban Design Workshop. Because the scope of the class was focused on Downtown Tigard exclusively, students used several other goals from the Tigard Comprehensive Plan, specific to the downtown area, to help crystallize concepts as they developed. Results included

- 15.1: “The City will promote the creation of a vibrant and active urban village at the heart of the community that is pedestrian oriented, accessible by many modes of transportation, recognizes natural resources as an asset, and features a combination of uses that enable people to live, work, play, and shop in an environment that is uniquely Tigard;”
- 15.2: “Facilitate the development of and urban village;” and
- 15.3: “Develop and improve the open space system and integrate natural features into downtown.” (City of Tigard, 2009)

These goals gave the class very direct guidance for students to generate perspective plans for downtown development that emphasized walkability, urbanity, and natural resources. Moreover, they instructed students that their visions should be wholistic, accommodating for many facets of life, in a way that would honor downtown Tigard as a distinctive community-created place.

## Opportunity for Development

Another contextual element that guided the urban design process for the students was the capacity for development in downtown Tigard. Although market forces aren’t currently spurring development in downtown, the public investment involved in the potential light rail project through the area may be the needed signal that Tigard is ripe for catalytic private investment as well. Moreover, many parcels in Tigard’s downtown are currently underutilized. Some lots are vacant, others are occupied by low-density industrial uses, and nearly all of it is within a half-mile walkshed of the proposed downtown light rail stop—just southeast of Hall Boulevard. Furthermore, land prices remain low in the area, relative to increasing prices tseen in the central Portland metro region, making this neighborhood an ideal location to invest in increased density and transit-oriented development.

However, the type of development that will succeed in this area must be tailored to the specific location within the broader context of the real estate market of the Southwest Corridor. With regional retail centers located both to the north and south, downtown Tigard is unlikely to compete as an “experiential shopping” destination. Washington Square and Bridgeport Village, respectively, are established regional malls, and with the terminus of the planned light rail project located in Bridgeport Village, it would be difficult to establish chain retailers in this part of Tigard. Big box retailers in the Tigard Triangle running south along Interstate 5 further discourage chain retail in downtown. And the multiple corporate office parks, which are located in the Tigard Triangle and along I-5, are unlikely to attract the large corporate tenants that could initiate a downtown office worker hub.

These regional market factors point toward a different type of development for downtown Tigard. It’s a downtown development that looks like locally owned businesses, smaller in scale, and more tied to the community. When coupled with the increased density of transit-oriented development, a vision of an urban village emerges, consistent with the city’s unique goals. Mixed-use, human-scale development with easy access to transit, could create a somewhat

slower pace than the stereotypical suburban development patterns of yesteryears, and contrast with other more auto-oriented areas in the region.

## Contextual Forces

# DOWNTOWN TIGARD:

A NEW VISION FOR A SUBURBAN FUTURE

### THE IMPETUS

THE POSSIBILITY OF LIGHT RAIL IN TIGARD WILL DRAMATICALLY CHANGE THE CONTEXT AND DEVELOPMENT POTENTIAL OF THE DOWNTOWN. THE LOCATION OF THE MAX STOP WILL DICTATE FUTURE GROWTH TO SOME EXTENT. HOWEVER, A HOST OF OTHER FACTORS WILL INFLUENCE DEVELOPMENT AS WELL. THE CITY CAN LEVERAGE THESE INFLUENCES TO DIRECT TIGARD TOWARD REALIZING THE GOALS SET FORTH IN ITS COMPREHENSIVE PLAN.

### THE GOALS

TIGARD WILL BE THE MOST WALKABLE COMMUNITY IN THE PACIFIC NORTHWEST WHERE PEOPLE OF ALL AGES AND ABILITIES ENJOY HEALTHY AND INTERCONNECTED LIVES.

THE CITY WILL PROMOTE THE CREATION OF A VIBRANT AND ACTIVE URBAN VILLAGE AT THE HEART OF THE COMMUNITY THAT IS PEDESTRIAN ORIENTED, ACCESSIBLE BY MANY MODES OF TRANSPORTATION, RECOGNIZES NATURAL RESOURCES AS AN ASSET, AND FEATURES A COMBINATION OF USES THAT ENABLE PEOPLE TO LIVE, WORK, PLAY, AND SHOP IN AN ENVIRONMENT THAT IS UNIQUELY TIGARD.

### LOCAL INFLUENCES

UNDERDEVELOPED LAND

EASY ACCESS

OPEN SPACE SYSTEMS AT EDGES

PROXIMITY TO FARMLAND

INEXPENSIVE LAND AND BUILDINGS



### SOCIETAL INFLUENCES

WORK EVOLVING TO BE MORE  
DECENTRALIZED AND FLEXIBLE

GROWTH IN DESIRE FOR URBAN LIVING

DECLINE OF BIG BOX RETAIL

GROWTH OF THE CIRCULAR ECONOMY

RISE OF THE SHARED ECONOMY



Figure 2: Poster of contextual forces shared at the Urban Design Workshop review, June 2018.

## **Walkability in the Pacific Northwest**

Walkability can be understood as the extent to which a person, traveling entirely by foot, is able to access the basic needs of everyday life. While walking is perhaps the most simple and fundamental of all modes of transportation, it is exceptionally rare in much of the developed western United States for one to find oneself in an urban environment that is both walkable and affordable to people of all ages, abilities, and incomes. Decades of automobility have shaped the built environment to be places where most, if not all, start and end a trip with the use of a private automobile. Moreover, much of the developed area in Tigard is currently automobile-oriented. Yet, the city has set an ambitious goal of becoming the most walkable city in the Pacific Northwest. To achieve this visionary goal requires a transformation of the built environment in Tigard towards a more walkable, human scaled inner-urban one.

## **Underdeveloped and inexpensive land**

Much of the land in and around the historic center of downtown Tigard could easily be considered underdeveloped, particularly for a city with the goal of becoming the most walkable city in the Pacific Northwest. Many of the lots in the proximate area to the future Southwest Corridor light rail alignment contain large building footprints with vast swaths of surface parking. While these uses contain the homes and jobs of many current day Tigard residents, an intensification of density and a more human scaled urban form would be necessary to activate the downtown area into its vision of a walkable urban village. With the exception of the historic Main Street area and a few newer developments supportive of walkability, much of the landscape in our study area can be adapted and incrementally developed to intensify vertical multi-use activity.

## **Open space system at edges**

When a future light rail station is opened near Hall Boulevard as part of the Southwest Corridor project, it will be sited at the center of an area surrounded on three sides by a system of creeks, natural areas, and wetlands. This open space system forms a circular area with a diameter of roughly a half-mile, or a ten-to-12 minute walk at a comfortable pace. To the west and south is Fanno Creek and the locally admired Fanno Creek Park and trail. To the east is Red Rock Creek, which winds its way through industrial and wetland areas that conflict with the current light industrial uses along the narrow creeks. These two creeks and their associated habitats represent an immense opportunity to acknowledge ecological boundaries by embracing the existing natural edges for the future of a walkable, dynamic, urban village, as the city has imagined itself.

## **Access to surrounding farmland**

The city of Tigard is situated near the periphery of the Portland Metro region's Urban Growth Boundary (UGB), which acts as the legal boundary between developed land and protected farmland areas. Access to the abundant and productive agricultural areas surrounding the region is both proximate and relatively simple within an extensive road network connecting central Tigard to its adjacent farmland. This dynamic means that both current and future residents of Tigard are able to enjoy the benefits of locally grown agricultural products with relative ease. This proximity also means that residents are able to access a fresh and stable food supply without the carbon intensive process of transporting goods long distances. Additionally, this dynamic affords the potential for resource flows and exchanges between food consumers and producers as food scraps and waste can be recycled in a symbiotic and sustainable manner.

## **Access to transportation investment**

The central area of Tigard sits at the nexus of major regional and statewide transportation infrastructure investment. Interstates 5 and 205 as well as Oregon State Highways 99 and 217 all provide easy access for automobiles and freight in and throughout the city limits. The historic Oregon Electric Railway right-of-way and proposed Southwest Corridor light rail provide opportunities for mass transit connections between Tigard, Portland, and other nearby suburbs. All things considered, these past and future transportation investments make Tigard one of the most accessible cities in the Portland region, giving it the potential to serve as a regional hub for outer-southwest Portland.

## **New models of “work”**

In the past decade, novel trends, in both workplace environments and social norms, have transformed how and where people earn their livings. With the rise of creative professions, new norms around flexible hours, shared spaces, and a blurring between individuals' professional and personal identity, traditional office lifestyles have become anachronistic. Mass and ubiquitous communication facilitated by technology and cloud computing has allowed the worker to be flexible and untethered from a desk—even an office space is no longer a necessity for the modern white-collar worker. These two trends converge to provide a moment in urban design where reimagining how the workplace could be planned anew in present-day downtown suburbia. Work spaces that are easily reconfigurable and scalable further represent a possible design standard that can be more amenable to smaller scaled, decentralized office environments, that don't require a daily commute lifestyle.

## **Increase of “urban seekers”**

Over the course of the twentieth century, the United States witnessed the rise of two generations of cohorts with a disproportionate influence on the culture and design of cities. The first of these two, the Baby Boomers, occurred just after World War II and lasted into the 1960's. Facilitated by the state's active role in promoting home ownership and the mass adoption of the automobile, Boomers were the first generation to have access to single family homes in a suburban environment. Towards the close of the twentieth century, another major generational cohort emerged, the millennials, and has thus far demonstrated a distinct preference for urban living and walkability. As millennials age, they demonstrate a continued preference for urban environments, placing a high priority on sustainable, dense cities. This generational preference has led to a mass flight of capital into the city and thus has placed enormous premiums on dense walkable neighborhoods. The city of Tigard could capitalize on millennial trends by reimagining the central city as one that affords an urban, walkable, and sustainable lifestyle while still positioning itself as a peripheral alternative to Portland.

## **Decline of the “Big Box”**

Tigard's rapid growth in the later half of the twentieth century translated to a built environment centered around the automobile. One of the signature elements of these development patterns is the large retail store, commonly (and somewhat pejoratively), known as the “Big Box.” Over the past 20 years, the rapid rise of e-commerce and a growing demand for small-scaled retail experiences means that the future of these types of developments is uncertain, at best. These land and resource-intensive developments provide an excellent opportunity for the redevelopment and the reimagining their existing structures.

## Circular economy

The idea of a *circular economy* can be understood as two linked, yet distinct, concepts, one with a focus on deep ecological sustainability and the other related to sustainable economic growth. The greatest challenge of the twenty-first century will be how to rapidly transition towards development patterns that efficiently and thoughtfully manage natural resources, orienting ethos towards zero-waste systems of resource exchange. With a growing population and a fragile ecological systems, the western United States will need to leverage its ingenuity and innovation to develop scalable patterns of development that aspire towards zero-waste. Furthermore, with the rise of the global economy and transnational corporations, it is necessary to consider ways in which cities can help facilitate the development of the local workforce and retain financial resources to produce multiplier effects that will sustainably grow the local economy.

## The Process

### Principles that Organized the Class

As previously noted, the Southwest Corridor project was the impetus for the Urban Design Workshop's focus on downtown Tigard. TriMet, as the primary client, has a clear interest in creating value and equitable growth within the jurisdictions associated with this large transit project, and the city of Tigard is one of the primary partners for this effort. Therefore, the class was charged with balancing TriMet's need to design and build a cost-effective light rail line based on Tigard's vision for future development in the city's core. TriMet's need for cost-effectiveness dictated the station location, which was a primary organizing principle for the class. The goals put forth by Tigard with respect to walkability, developing a complete urban village, integrating natural resources into the urban fabric, and creating a unique place, were guiding principles as well.

In addition to these contextual forces, several theoretical principles guided students. The first of which was presented by Instructor Tim Smith at the outset of the class. He espoused the principles of "Civic Ecology" as critical to thinking holistically when developing a land-use framework, regardless of location. Civic Ecology is the integrated web of energy, nutrient, resource, financial, information and cultural flows, envisioned, created, and managed by citizens acting for the common good. In other words, it is a concept that marries the "hardware" of urban design, the physical context and development of a place, with the software of cultural practices and resource movement or flows. By utilizing this lens for the project, we were able to integrate concepts, like eco-industrial practices, cyclical resource utilization, and smart infrastructure into our designs.

# Development Patterns and Inspirations



Figure 3: Orenco Station Master Plan, LRS Architects

## Transit Oriented Development

The first MAX light rail line began service in the fall of 1986 and over the past t30 years has served as a catalyst for a new development and building typology throughout the region. *Transit Oriented Development* is a pattern of development that centers on walking and transit stations, and includes a goal of higher density mixed-use buildings in proximity to the walkshed surrounding the station's node. Additional transit lines have been added to the metro system over the past three decades and have informed land-use decisions for the multi-nodal urbanization of the regional centers and town centers where Transit Oriented Development was explicitly prioritized (Metro, 2014). Some of these developments have been iterative, consisting of gradual redevelopment of adjacent properties to approximate an ad hoc urban village-like vibe. However, others have embraced a more comprehensive vision of a new development pattern in previously underdeveloped and undeveloped areas. Most notability, Orenco Station in Hillsboro, where Oregon stands as a representative case study for how to

build a transit oriented development where low density existed before. Inspired by the walkable close in suburbs of the late 19th and early 20th century, Orenco Station affords residents the ability to access all of their basic needs on foot or bicycle, while preserving access to regional destinations via transit or private automobile. This vision of an urban village anchored by a major transit investment serves as an essential case study in the downtown Tigard context.

### Garden Cities

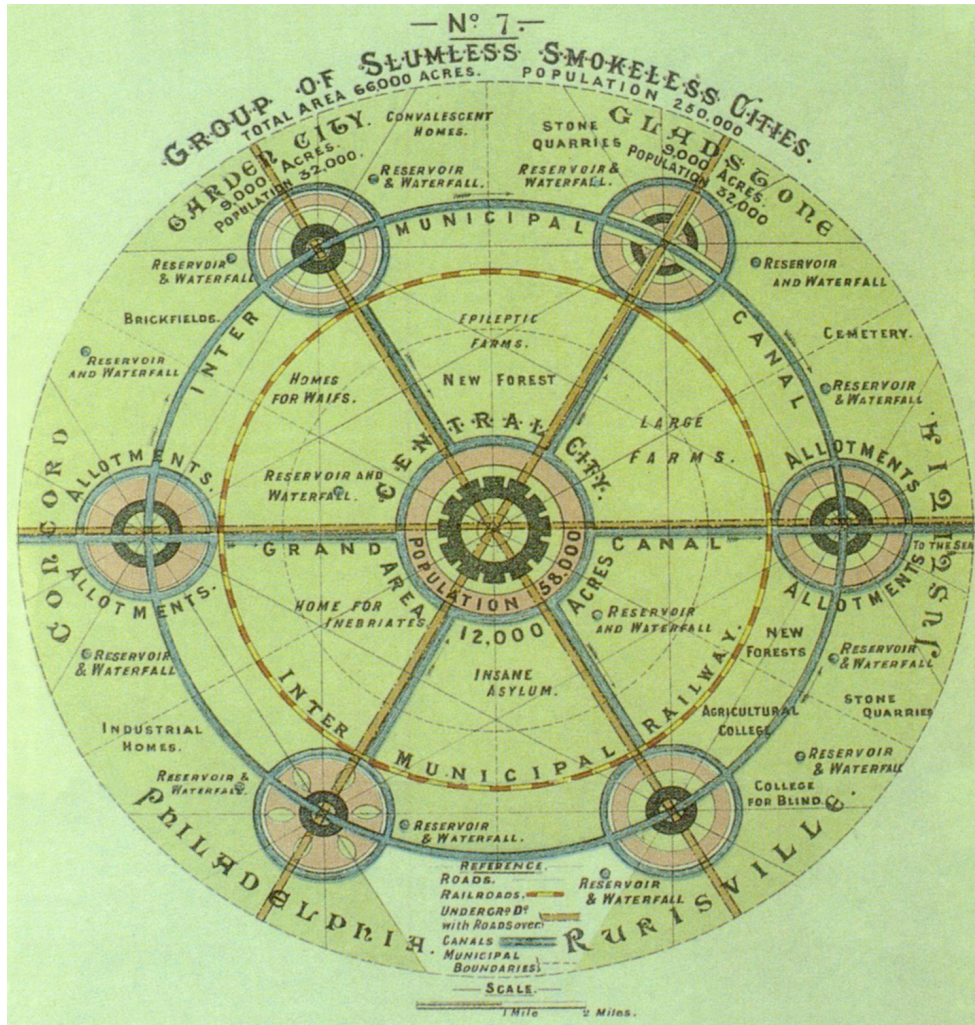


Figure 4: Garden City Diagram, illustrating a series of multi-nodal walkable villages interconnected by rail, Ebenezer Howard.

One historical theory in community planning lent itself to the development patterns the class believe is emerging in downtown Tigard, the Garden City concept. Originally popularized by Ebenezer Howard around the turn of the 20th century, Garden Cities were small walkable villages surrounded by “green belts.” Each village, in Howard’s conception, would be able to meet the daily needs of residents’ work, social, family, and recreational needs within proximity to one another. Howard also supported the concept of communal, rather than private, ownership of property. Additionally, he proposed that business and industry work together, synergistically, to improve productivity. Howard’s vision gained traction in planning circles and several garden cities were developed in the United Kingdom. Some were even attempted in the United States, but the theory was ultimately too rigid and required too much authoritarian planning to be implementable on a broad scale.



In Tigard, a roughly half-mile walkshed from the proposed transit station adjacent to Hall Boulevard could cover the entire downtown area and this is compatible with the idea of a compact, walkable community that Howard proposed. The natural space provided by Fanno Creek, when coupled with what would conceivably be a restored Red Rock Creek, could make a permeable green belt around much of downtown. Moreover, a mix of residential, commercial, industrial, and civic uses that already present in the area, suggests the neighborhood could easily support many of daily needs of new and existing residents. Howard's ideas about various uses working together dovetailed with the eco-industrial processes the class has conceptually adopted. Finally, Howard's ideas about communal property ownership echoed the idea of a community land trust that the Portland State University students supported in order to help maintain affordability as development occurred. Though downtown Tigard would never be an ideal garden city by Howard's standards, nor did students hope for it to be as such, many of the ideas proposed by Howard in his Garden City theories were found to be completely compatible with the development pattern proposed for this area. Therefore, students used the Garden City model as valuable theoretical baseline for their class assignments.

## **Method**

The methodology used by the PSU Urban Design Workshop was practice-based and experiential, rather than theoretical. Though there were considerable theoretical underpinnings, the group was encouraged to be imaginative and develop creative strategies to solve the urban design challenges presented in Tigard. In order to do this, students were given resources for conducting independent research on their own using shared concepts. There was not a prescribed framework for the class, which encouraged robust creativity.

The initial weeks of class were dedicated to developing an understanding the geographical area in which the subject area is focused. The contextual forces influencing the project were considered as well. Through in-class presentations by the instructor, site tours, and lectures by officials from several of the municipality's agencies and academic programs, students developed an understanding of existing conditions in Tigard, the big forces that were affecting development, and the needs and priorities of its various stakeholders. The class also built its knowledge-base with implementable concepts, such as civic ecology and eco-industrial development for example.

Armed with this background information, the class began an exploratory phase, in which students collaboratively studied maps of the area, incorporated various planning theories, and developed numerous ideas about the possibilities for development that could take place well into the future. This phase of the class was open-ended and creative, but it helped students develop a shared understanding of the foundations that could inform later iterations of the city and its surrounding land-use.

The class was then tasked with gathering new information and data to inform the feasibility of the various ideas that was generated during the exploratory phase, where students expressed a desire to engage with the community and to draw outside voices and perspectives into the discussion. In order to do this, the group hosted a "flow mapping" workshop attended by other planning students, practicing planners, and representatives from Tigard. Flow mapping is an exercise in which participants use their local knowledge to map out where resources are located spatially and how they move within a community. By doing this, it is possible to identify key locations for a wide range of resources, like energy, waste, water, and knowledge. The outcomes of this exercise, coupled with the observations of existing conditions in Tigard, helped students to refine their concepts regarding its future development. Findings were generated and presented at a mid-term review.

Based on the contextual forces, existing conditions, qualitative research, theoretical exploration, and quantitative data, the class developed a number of guiding principles that would inform the deliverables for the class project. Once agreed upon, these principles were applied as a springboard for development of neighborhood-scaled land use concepts.

Students, working independently at first, and then collaboratively, developed these concepts for land use as it relates to zoning, density, circulation, open space, resource flows, and sub-areas within the larger downtown neighborhood. This development process was iterative, with opportunities for peer feedback, as well as feedback from practicing planners who appeared routinely as collaborative guests. Eventually, a brainstorm led students to conduct an additional “ground-truthing” field trip in downtown Tigard, organized to ensure that proposals were not only forward-reaching but would also honor existing community values.

Once the class, as a group, had developed this land use framework, students, working individually, explored more specific aspects of the overall land use concept. The four subjects that arose for granular refinement were the “Innovation District,” “Red Rock Creek District,” the “green fingers” concept, and an innovative approach to street design. In this phase of the class, students went into detail about the physical design, uses, and infrastructure. The results of these studies were presented, along with the broader land use framework, at the end-of-term review in front of a panel of practicing planners and urban designers from around the Portland Metro region.

## Student Deliverables

### Urban Design Principles

In order to ground our urban design concepts in a common vision, the PSU workshop group developed a list of 11 urban design principles. These principles grew out of a shared design to be opportunistic with the existing conditions of our study area and goals outlined in the Tigard Strategic Plan, but were also informed by our discussions of how a possible future for an urban, walkable village would be experienced by its current and future residents.

#### 1 - Mixed uses on all scales

A variety of building uses and functions should exist at a variety of scales (i.e. the individual unit, the building, the block, the district, the study area). On some scales, one use might be predominant (i.e. housing or commercial activity), but these uses would be in close proximity to others, which would encourage residents to access their daily needs in close proximity to the places they live, work, and play.

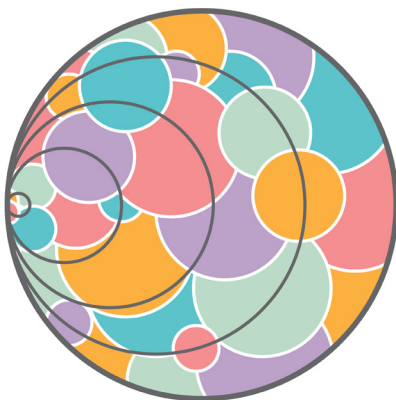


Figure 5: Urban Design Principle 1 – “Mixed Uses On All Scales.”

## 2 - Prioritize walking first

As mentioned, walking is the most fundamental mode of transportation to our guiding principle proposals. It should be prioritized above all other modes when designing streetscapes in Tigard, since it is so enmeshed in their existing plans for the area. Supportive modes such as biking or transit services, accessible within the walkshed, should also be prioritized. Smart mobility (i.e. autonomous vehicles and shared electric vehicles) have a place in the proposed transportation system as well, but the needs of people walking, biking, and taking transit should take priority. Private vehicle use should be allowed but discouraged.

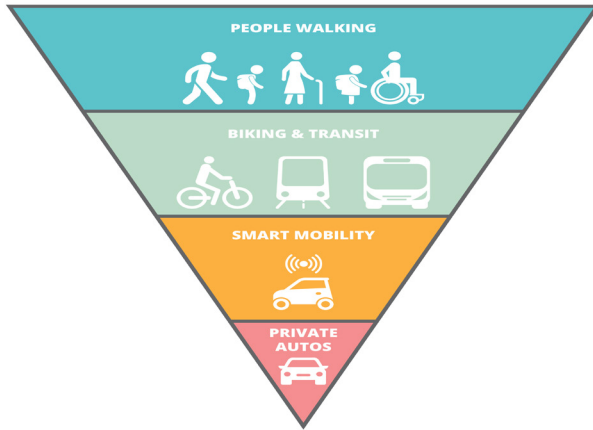


Figure 6: Urban Design Principle II – “Prioritize Walking First.”

## 3 - A green edge & green connections: “green fingers”

Downtown Tigard is uniquely situated at the confluence of two creeks and is surrounded on three sides by sensitive natural areas. These ecological features should be embraced through urban design. ‘Green Fingers’ (as coined for the sake of class discussions) naturally transects the subject area, ensuring existing ecology is a part of everyday life. The fingers presently surround a corridor that serve ecological and human habitat resource circulation.

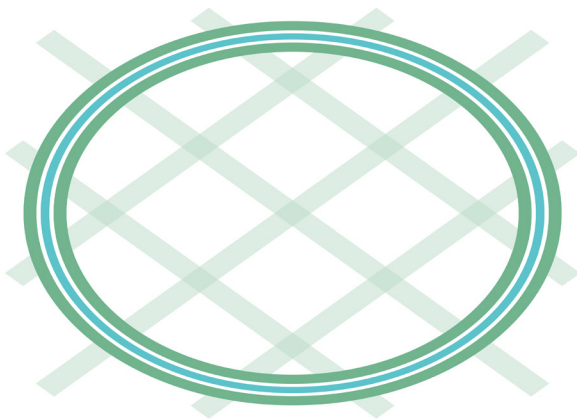


Figure 7: Urban Design Principle III – “Green Fingers.”

#### 4 - Calm the center

At the center of study area, a multimodal transit hub could exist at the site of the new TriMet MAX station. Hall Boulevard could be calmed as it reaches the center of the study area, increasing pedestrian safety and accessibility to transit services. Also, well-lit crosswalks could be installed to discourage 'cut-through' automobile traffic around the proposed hub.

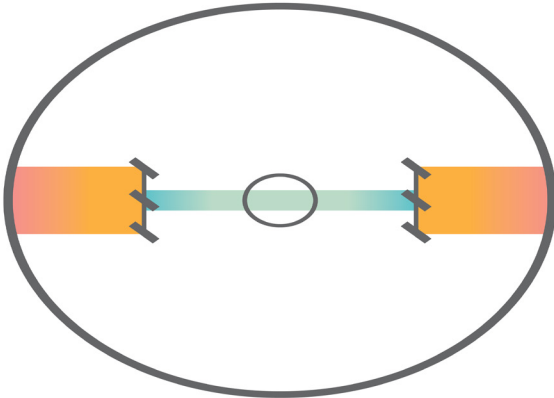


Figure 8: Urban Design Principle IV – “Calm the Center.”

#### 5 - Good urban design & three types of activities

Good urban design encourages the use of public space in downtown Tigard for optional individual or social activities. Human scaled, walkable, and dynamic public spaces encourage people to engage in 'optional activities' like eating outside, talking recreational walks, playing in the street, or attending public events. The more optional activities occur, the more likely downtown Tigard residents are inclined to engage in social activities across all demographics.

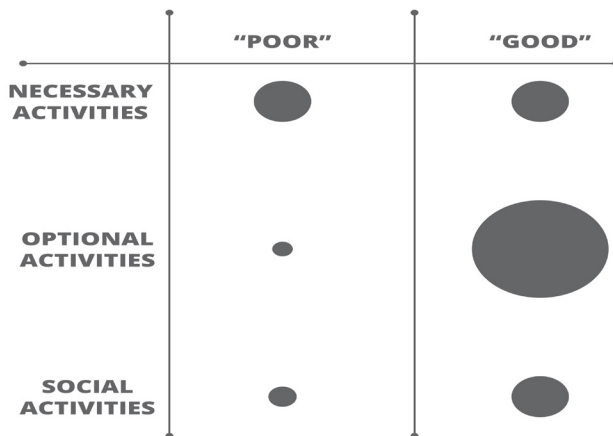


Figure 9: Urban Design Principle V – “Three Types of Activities.”

## 6 - Walking demand & block size

In areas with a greater amount of people walking as their primary mode of transportation, the street grid should be composed of smaller block sizes. Small block size supports walking and diversity in route choice. Small blocks also increase the ratio of building frontage area, and provide for great social and commercial activity. In areas with less demand, larger block size is permitted to allow for more flexible building uses.

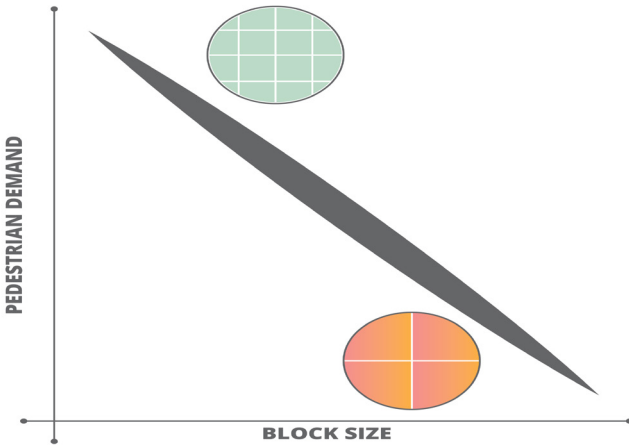


Figure 10: Urban Design Principle VI – “Walking Demand & Block Size.”

## 7 - Equity | environment | economy

The three “Triple Bottom Line” goals—often framed as the competing priority for ‘equity,’ ‘environment,’ and ‘economy’—could be fully integrated into all aspects of downtown Tigard’s urban design. A community’s sustainability requires all three goals are met simultaneously, and the students of this class believed this is possible in Tigard.

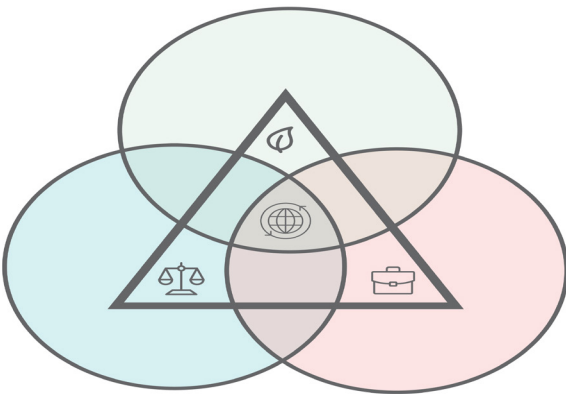


Figure 11: Urban Design Principle VII – “Triple Bottom Line.”

## 8 - Diverse housing types with multiple actors

Housing choice is provided by a variety of housing types supported by the in-state and out-of-state actors, as well as the private market. Middle housing is common. However, housing types appropriate for all family sizes and types could be enhanced in and near downtown Tigard. Additional housing supply could enhance lifestyles for people of all ages, wages, and abilities.

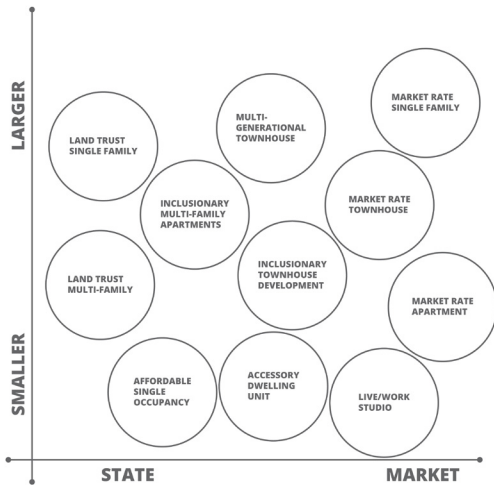


Figure 12: Urban Design Principle VIII – “Diverse Housing Types with Multiple Actors.”

## 9 - All needs at all life stages

Downtown Tigard residents should live happy, meaningful, and fulfilling lives. The downtown community could be designed to allow for people at all life stages to meet all of their basic needs. When these needs are met, people are able to realize self-actualization.

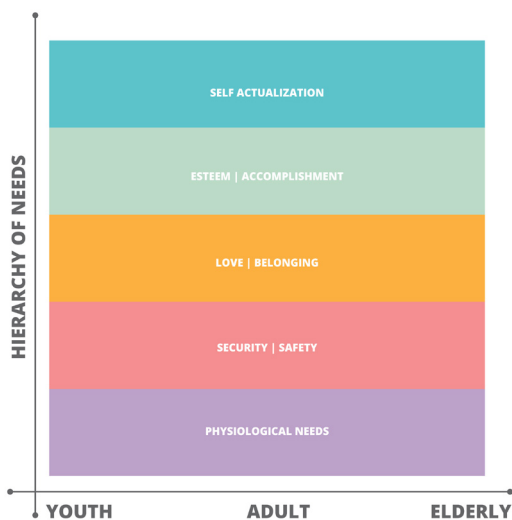


Figure 13: Urban Design Principle IX – “All Needs at All Life Stages.”

## 10 - Density east to west

Density of building mass and pedestrian activity is centered around the transit station near Hall Boulevard. Presently, density of activity slowly tapers off towards boundaries at the green edge, with a slight increase in residential and commercial activity near Fanno Creek.

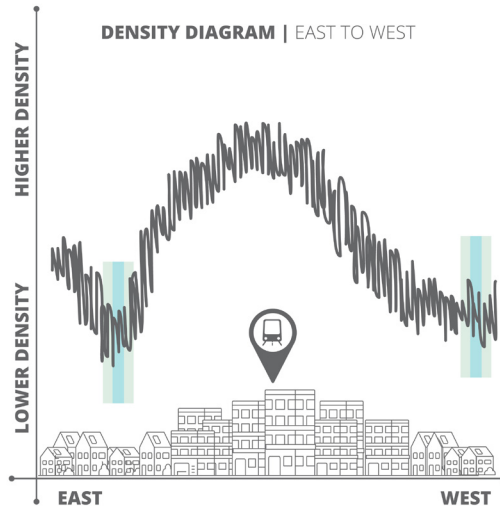


Figure 14: Urban Design Principle X-I – “Density Diagram, East/West.”

## 11 - Density north to south

Density increases towards the northern end of downtown Tigard, in the ‘village,’ which connects the Main Street’s commercial area to the multimodal transit center. However, further south, into the proposed Agro-Eco-Industrial District, density gradually decreases.

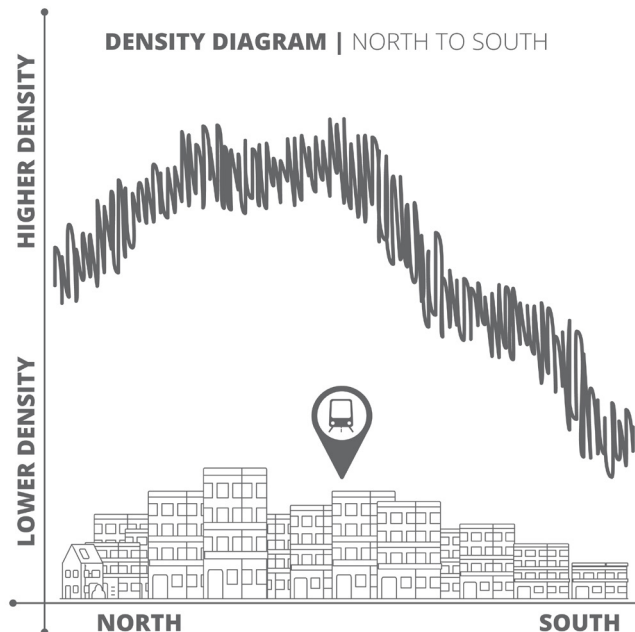


Figure 15: Urban Design Principle X-II – “Density Diagram, North/South.”

## Resource Flow Synthesis

During the mid-point of the workshop, the PSU class of students and SERA architects hosted a group of planners, architects, professors, and graduate students of landscape architecture to participate in a resource flow mapping workshop to identify opportunities to leverage the 'software' of a future downtown Tigard. In the Civic Ecology framework, there is a dual emphasis on both the 'hardware' (buildings, streets, public spaces) and 'software' (human capital, social networks, natural resources) of urban environments.

In three groups, resource flow mapping workshop participants spent time examining the existing conditions, opportunities, and constraints in the subject area. By identifying existing and potential human and natural resource conditions, the group was able to forecast innovative connections and exchanges between these forces in the near future. Such resource flows were grounded in a future of deep sustainability and zero-waste. The eventual product that emerged was a series of potential uses and users of the space, abstracted from the limitations of the built environment. By considering the 'software' first, PSU students were forced to think of how the spaces they would later examine in more depth would operate in a deep sustainable and civically empowered manner. These resource flows (and their implied actors) served as both an inspiration and an essential limitation in the urban design concepts that would later emerge. The 'hardware' that was later considered primarily served the 'software' of a deep sustainable and civic-oriented vision outlined in the resource flow mapping workshops.

### Water Flow

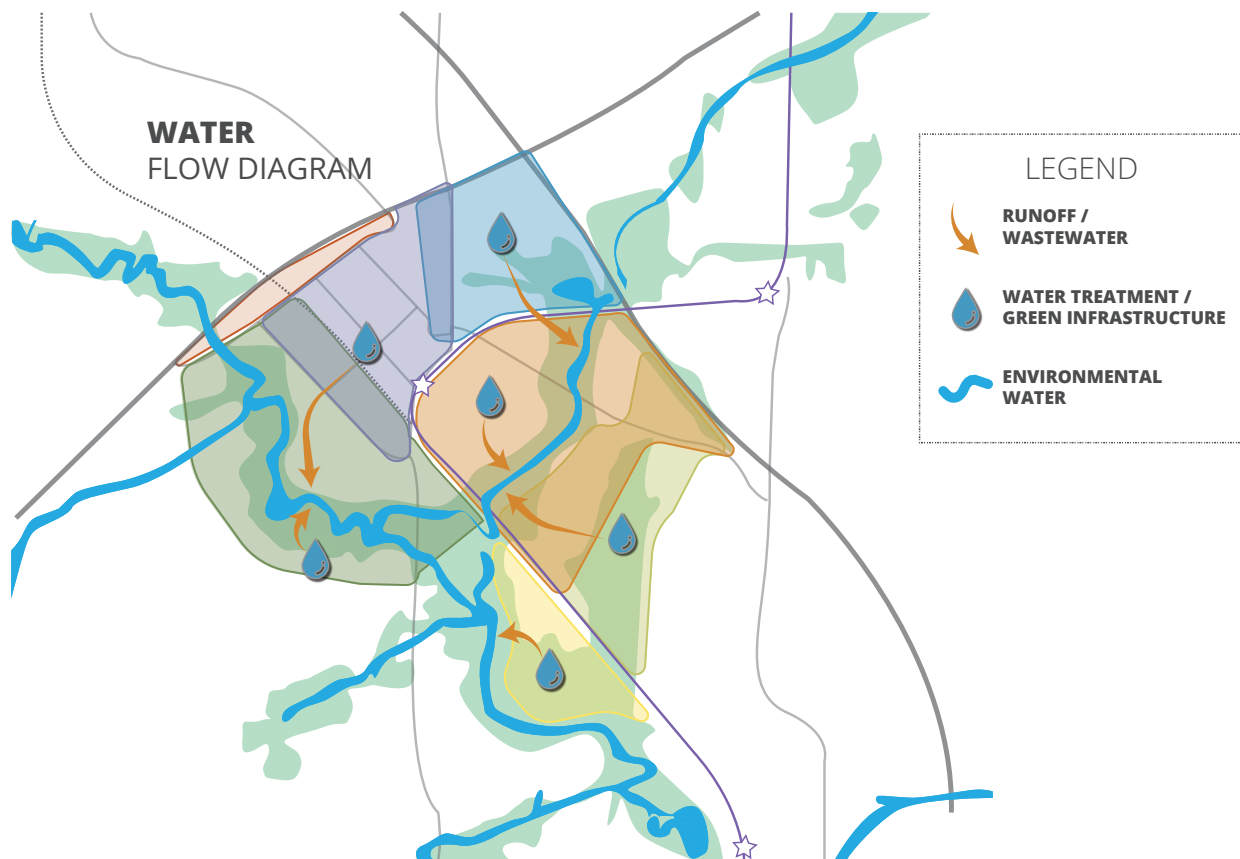


Figure 16: Synthesized Civic Ecology Resource Flows, Downtown Tigard.



# Energy Flow

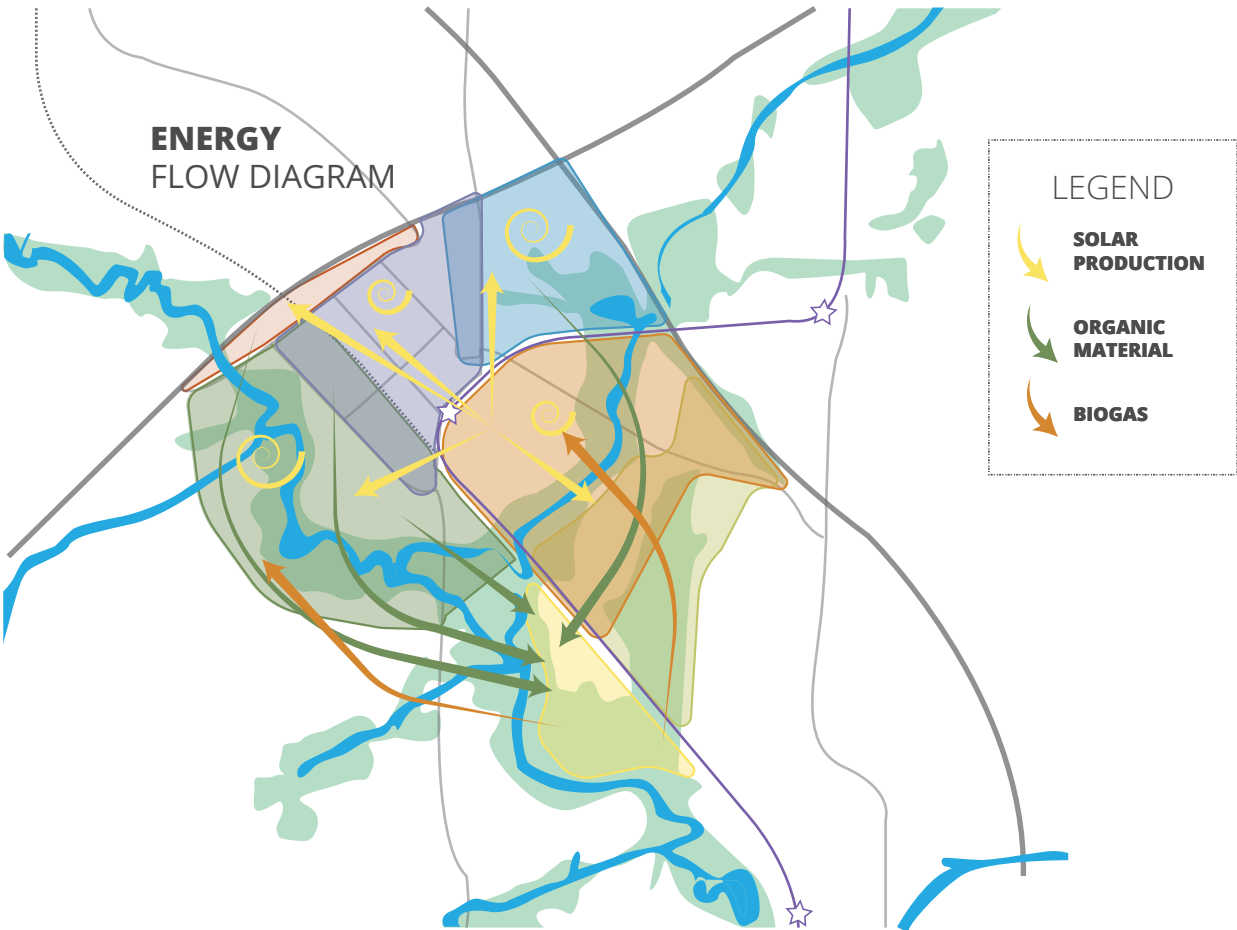


Figure 17: Synthesized Civic Ecology Resource Flows, Downtown Tigard.

# Assistance Flow

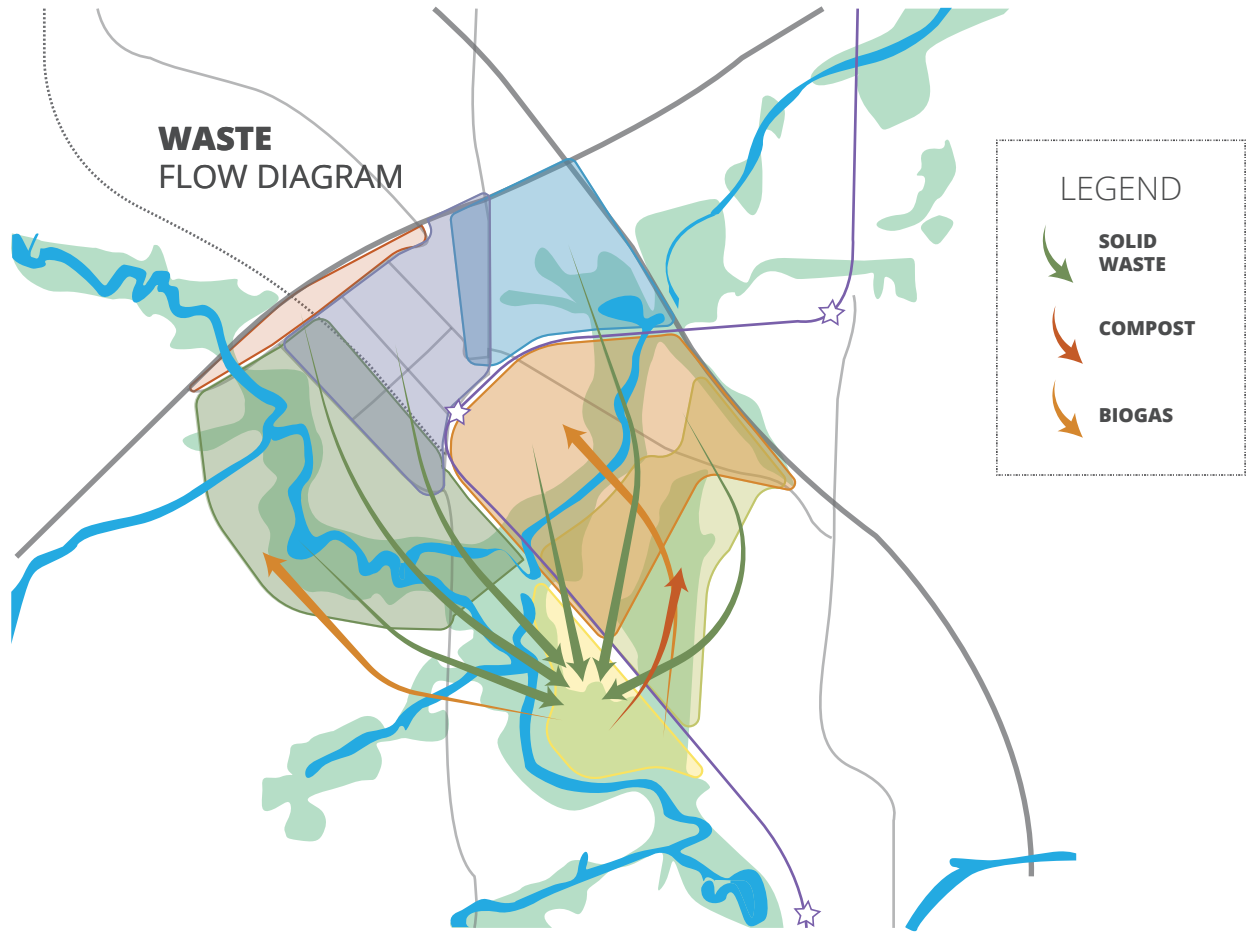


Figure 18: Synthesized Civic Ecology Resource Flows, Downtown Tigard.

**Waste Flow**

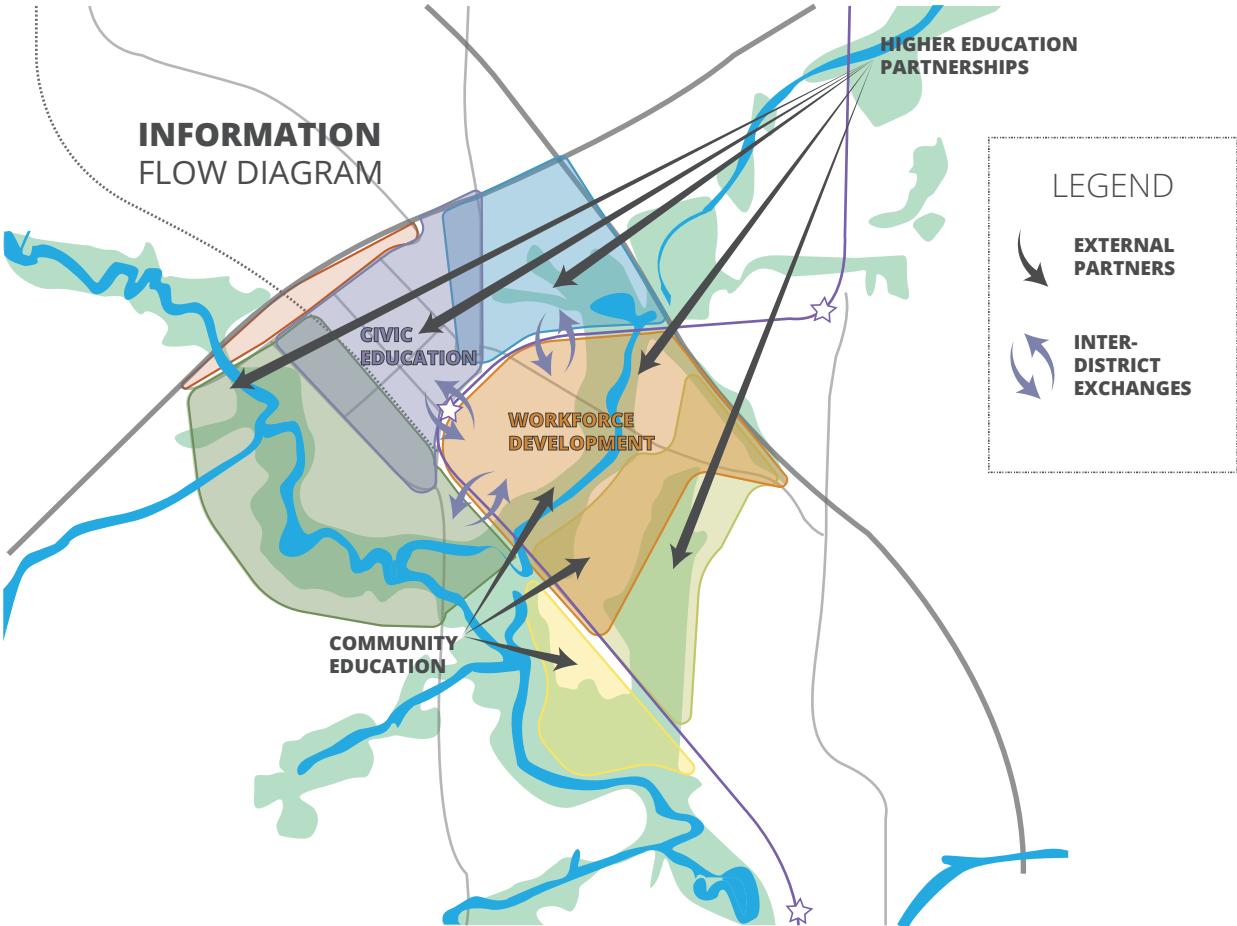


Figure 19: Synthesized Civic Ecology Resource Flows, Downtown Tigard.

## Information Flow

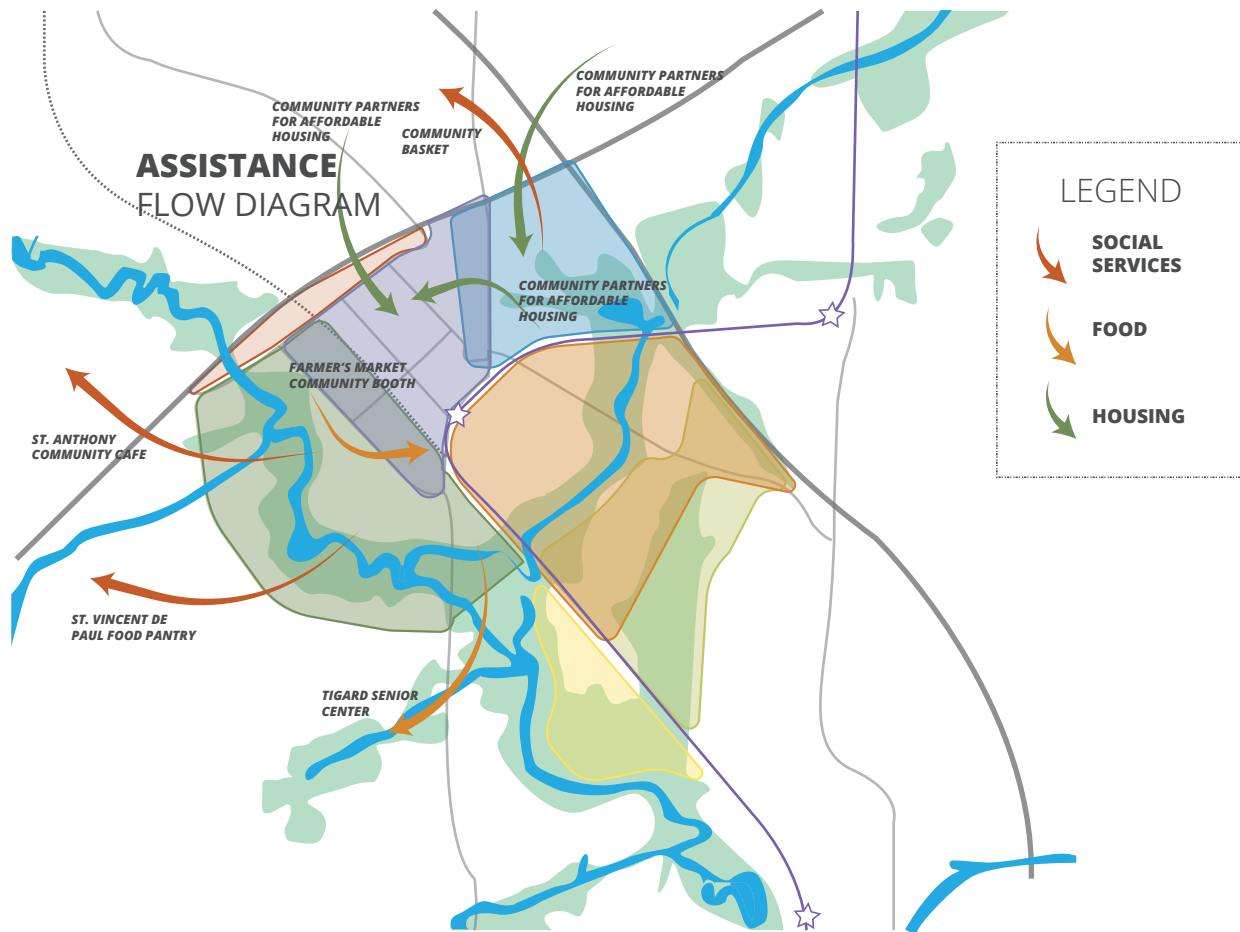


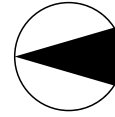
Figure 20: Synthesized Civic Ecology Resource Flows, Downtown Tigard.

## Land Use

As the group's image for the future of downtown Tigard evolved, it became clear that traditional zoning would be too prescriptive a method for determining land uses. Because students imagined the prevalence of mixed-use development, zoning would need to emphasize certain development types within specific areas without excluding others. Therefore, rather than use traditional zoning to regulate land use, the class elected to propose a descriptive zoning approach. In this approach, uses in any given development would be flexible, so long as they respected the ultimate vision for the sub-area they were situated within. This method was envisioned as a way to delineate a primary use or two within each sub-area of downtown, while still accommodating for others. The hope was that this would foster development that could cater to people with a wide variety of means, needs, and lifestyles. By promoting diversity of uses, we would promote a diversity of residents, workers, and visitors--all of whom could find that downtown Tigard could meet their needs.

# DISTRICTS

- CIVIC HEART**  
known for mobility, exchange, and civic activity; less programmed; space for public forum
- VILLAGE**  
highest density; mixed-use; commerce + living;
- OLD TOWN**  
smaller scale; elements of preservation; edge shields village; rooted sense of place
- FANNO CREEK DISTRICT**  
peripheral mixed-use with residential emphasis; less dense than village; exchange with natral areas
- RED ROCK DISTRICT**  
peripheral mixed-use with commercial emphasis; less dense than village
- INNOVATION DISTRICT**  
dense working area, specifically start-ups and maker places; small live-work places
- AGRO-ECO-INDUSTRIAL**  
hub of production; supports cyclical economies;
- FULL-CYCLE**  
composts and recycles all types of waste



1 in = 200 feet

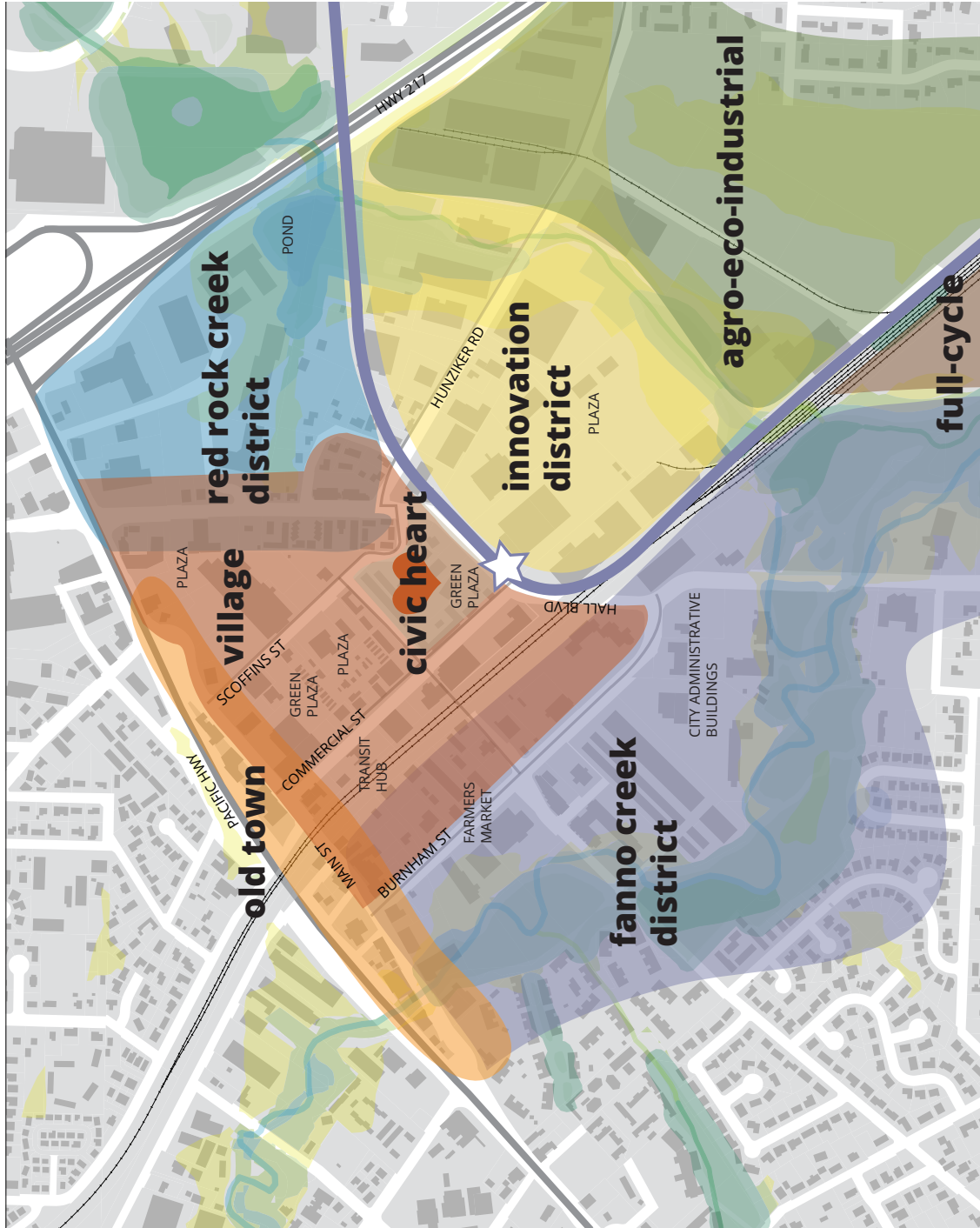


Figure 21: Downtown Tigard, District Map.

In addition to an innovative approach to zoning, the class devised a novel approach to managing density as well. Rather than encouraging code that explicitly dictated density via zoning for single family residential or using floor area ratio (FAR) as a determinant, the class elected to study the mass or volume of structures that could be built. To do this, the group developed a “density gradient” flowing both east-west and north-south that could be used to encourage development at various heights depending on proximity to the core of the downtown area. This was then translated into a map that showed ranges of building heights considered adequate to support transit and a vibrant downtown district. Buildings ranged as high as seven stories in the center to single story construction on the periphery. While it was understood that these maximum heights would not be reached in short-term development due to current market conditions, the long timeframe in which this land use concept was assumed to be implemented, would accommodate growth after light rail is installed.

## **Districts**

Within the study area, the PSU workshop group identified a collection of overlapping, yet somewhat distinct districts that would each contain a complementary mix of users and uses. These districts are not intended to be neighborhoods, but rather areas with a coherent vision for downtown Tigard that each emphasize a distinct element of the complete urban landscape. Users of this space could experience differences between the various districts, but would be able to naturally and intuitively pass through districts in their daily lives.

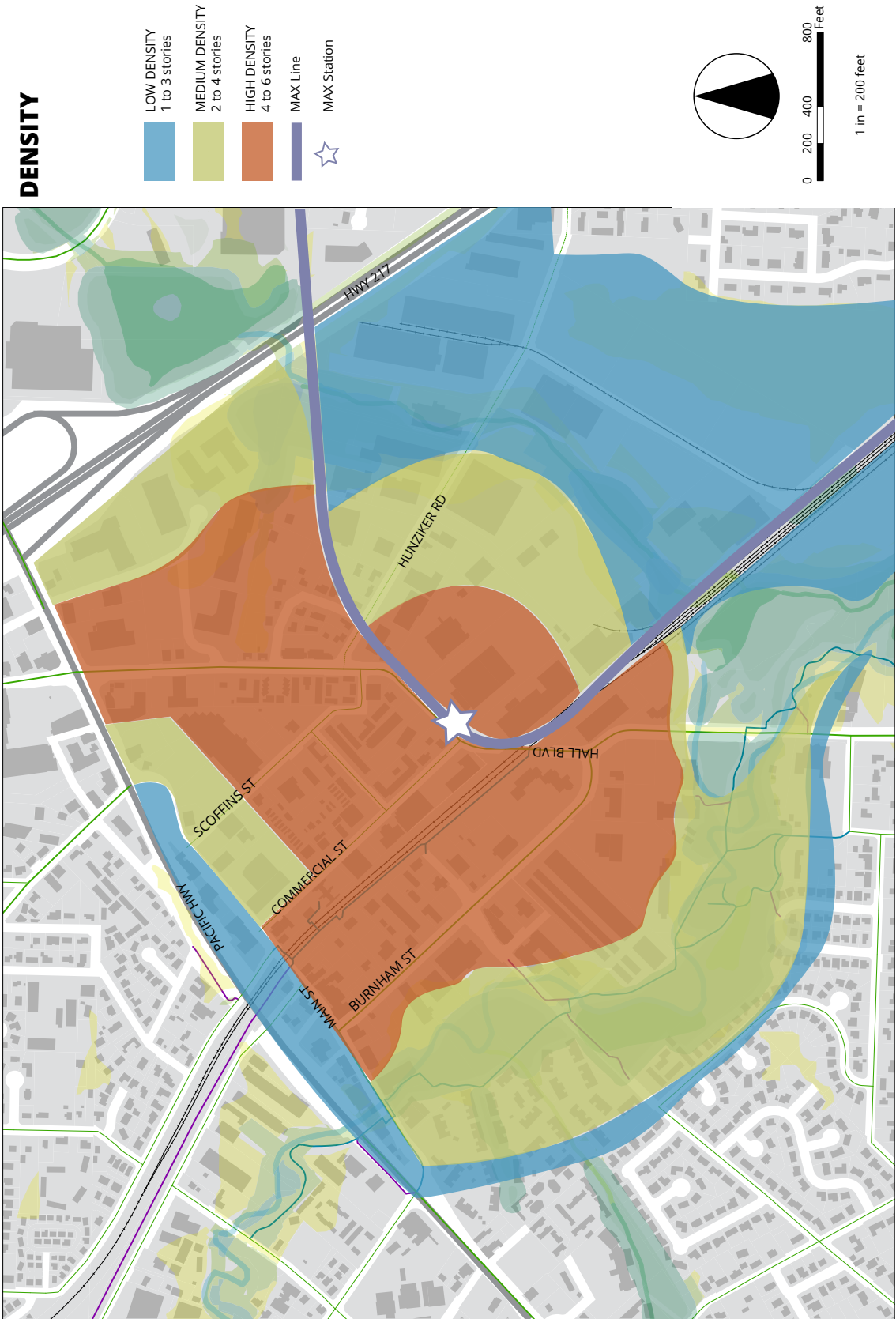


Figure 22: Downtown Tigard, Density Map.

### **Civic Heart District**

- Known for mobility, exchange, and civic activity
- Less programmed
- Space for public forum

### **Village District**

- Highest density
- Mixed-use
- Commerce + living

### **Old Town District**

- Smaller scale
- Elements of preservation
- Edge shields village
- Rooted sense of place

### **Fanno Creek District**

- Peripheral mixed-use with residential emphasis
- Less dense than village
- Exchange with natural areas

### **Red Rock Creek District**

- Peripheral mixed-use with commercial emphasis
- Less dense than village

### **Innovation District**

- Dense working area, specifically start-ups and maker space
- Small live-work places

### **Agro-Eco-Industrial Area(s)**

- Hub of production
- Supports cyclical economies

### **Full Cycle Elements**

- Composts and recycles all types of waste



## Streets & Connectivity

The existing street grid in downtown Tigard contains large block sizes that serve to generally limit connectivity, which routes the autonomy of pedestrian movement. In many ways, the street grid and platted parcels of the study area represent a development pattern that could restrict Tigard's to achieve its goals of walkability to create a vibrant urban village. In comparison to downtown Portland, home to some of the most walkable neighborhoods in Oregon, Tigard's street network requires people to engage in some indirect and circuitous routes in order to access their eventual destinations. Small, human scaled blocks with a highly granular street network are an essential driver of pedestrian activity and the flow of movement. Presently, the existing network is more automobile-centric, but that is not to say that an iterative and gradual street infill plan could support increased density, walkability, and livability immediately. This concept builds off existing work by the city of Tigard to identify opportunities for street infill. Moreover, the workshop team would also like to introduce a new street typology, "*the shared street*," which the student group believes would allow for even more street infill to support pedestrian activity and increase the linear frontage of the built environment accessed by people walking. This approach does not seek to replicate the small block sizes of the existing most walkable neighborhoods in the Pacific Northwest but rather present a new urban street typology that would make Tigard a uniquely walkable city. An exploration of imagined street typologies are contained within examples in the following chapter entitled "Street Design Guide."

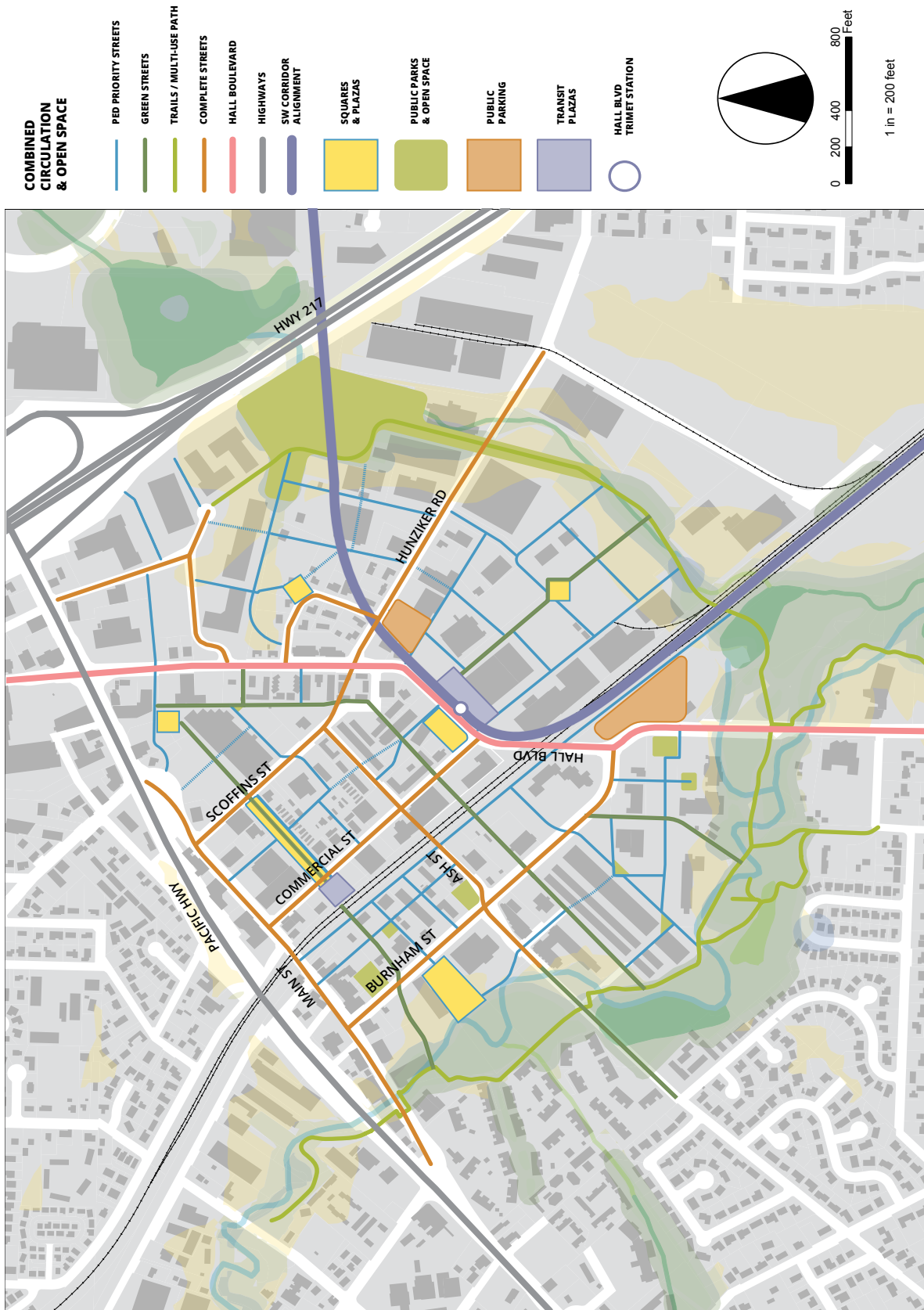


Figure 23: Downtown Tigard, Combined Circulation and Open Space Concept

## Student Deliverables: Sub-Areas

In addition to the broad, shared concepts outlined in the previous chapter, each of the four graduate students enrolled in the Urban Design Workshop developed sub-area-specific concepts that expanded the depth and specificity of their theories. These concepts were developed independently. While each share a common vision of a deeply sustainable and civic-oriented downtown Tigard, the content of each individual sub-area reflected the individual interpretation of the shared concepts—compatible yet complementary of one another, despite having been part of an independent effort.

### Innovation District

The sub-area study of the Innovation District yielded several conceptual changes to how the area is currently developed. These changes revolved around the need to integrate the area immediately south of the light rail station with the transit oriented development and walkability that is expected to prevail between Hall Boulevard and Main Street. In order to accomplish this, a reimagining of the definition of industrial zoning was necessary. Along with building out the street grid and integrating natural features, introducing new and mixed-uses to the industrial zoning code could help ensure that this part of Tigard's downtown was able to support the city's goals for future walkability, and thereby increase density.

## DOWNTOWN TIGARD INNOVATION DISTRICT

An affordable, net-zero production start-up community:  
Live-work and the triple bottom line

### A VISION SUPPORTING:

- Transit
- Walkability
- Economic Growth
- Sustainability
- Resiliency
- Community Development



### CATALYSTS:

- Incentives
- Community Trusts
- Integrated Practices
- Pilot Projects

### HOW:

- Incremental Change
- Institutional Partnerships



Figure 24: Innovation District, Concept Poster shared at the final Urban Design Workshop Review, June 2018.

In order to promote walkability and more urban development patterns, a street grid was deemed essential. Building from the existing street grid and buildings, new pedestrian-first streets were plated in order to increase connectivity and develop a block pattern. These streets would be developed to prioritize pedestrian movement, but they would also likely need to allow access for large trucks. The result would be impervious streets that accommodate industry as well as pervious streets that would function to ‘annex’ Green Finger’s landscape.

The integration of natural features would serve a dual purpose in this district. Not only would they allow residents, workers, and visitors to enjoy natural amenities and reap the benefits of the increased aesthetic of green infrastructure, they would help to treat stormwater runoff and could be developed to help treat industrial effluent before it reached Red Rock Creek. This green infrastructure would be incorporated into streetscapes, roadways, site plans, and rooftops (per city code) to ensure that eco-industrial practices become the norm in the area. Additionally, restoration of Red Rock Creek would be undertaken in order to enhance the continuity of habitat from Fanno Creek to the Tigard Triangle, and thus increase additional multi-modal paths to support recreation and active transportation.

Lastly, an expansion of the uses in the industrial zoning code could allow for a quasi-industrial mixed-use employment zone. The ground floor could be considered convenient to industrial end-users while floors above would permit mixed-use zoning. For example, offices could cluster with a tech incubator that accommodates small start-ups that require lab-based research and development. Furthermore, live-work developments could also occupy this zone, combining limited residential uses above “makerspaces” in order to support local artisans. Because many industrial buildings are built to be reconfigured and adjusted to meet the needs of different tenants, the revised zoning could accommodate the Innovation District without expecting redevelopment of existing structures. Increasing the density of infill development could cater to an array of industrial uses from urban farming, to technology, to artisanal manufacturing, and more.

**TODAY**

**TIGARD INNOVATION DISTRICT**

**20 YEARS**



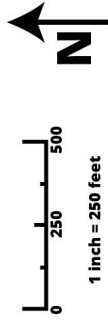
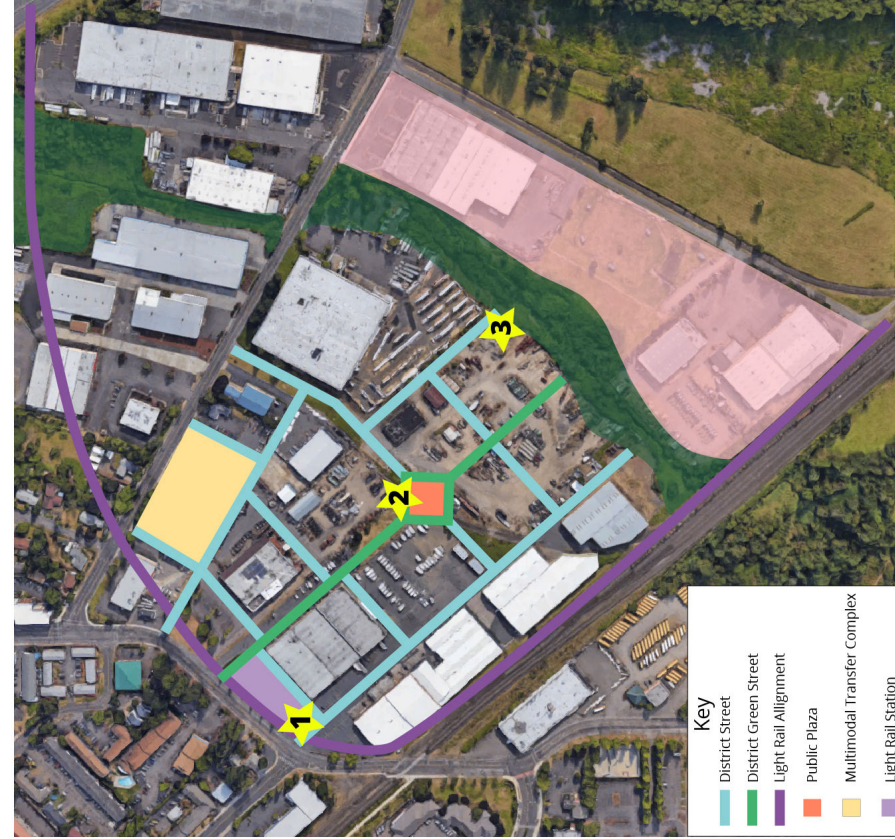
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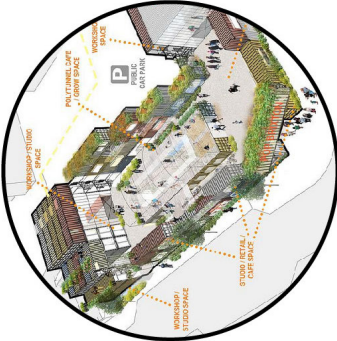
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Figure 25: Innovation District, Today vs. Future Concepts

## Green Fingers

The concept of “Green Fingers” was conceptualized as a way to integrate natural habitat into the urban form of downtown Tigard. A green finger is a narrow band of vegetation that stretches into the urban core from the adjacent natural areas on the periphery of downtown. These could run along streetscapes or stand alone independently as a linear parks, and could include trees and shrubs or simple grasses and groundcovers. By capitalizing on the natural resources of Fanno Creek and Red Rock Creek and extending these natural habitats into downtown, it is possible to improve recreational resources, livability, sustainability, and the resiliency of the area’s existing ecology.

In order to highlight the potential of Green Fingers, a single example was studied. This finger extended from Fanno Creek on the west side of downtown, across the WES line and into the “village district” and Commercial Street. Because it traverses multiple districts, it also takes on multiple forms. In lower density areas, the finger functions as a park space, at other points, it is integrated into the streetscape or even the roadway. In the area with the most density the finger is presented as a lush plaza, which dissipates into a series of semi-public pocket parks.

## DESIGN PRINCIPLES

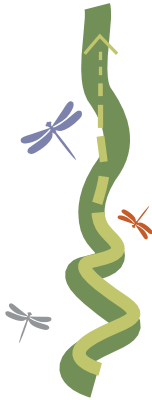
SOFT/NATURALISTIC TO HARD/URBAN



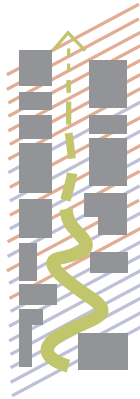
NATURE WEAVING INTO HARDSCAPE



SUPPORT WILDLIFE CORRIDOR



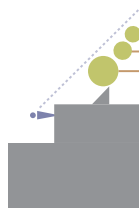
TRANSITION BETWEEN + CONNECT DISTRICT



CREATE SPACES ALONG THE WAY



EYES ON THE STREET



STORMWATER MANAGEMENT



PRIVATE DOMAIN INFLUENCED BY PUBLIC DOMAIN



## DESIGN STANDARDS

### PLANTING

- + Incorporate non-invasive, low-maintenance & drought-resistant plantings
- + Maximize vegetation
- + Edible plantings in more protected areas for gleanings
- + Design for easy maintenance
- + Design supports "eyes on the street"
- + Design plantings for low-impact and high-impact activities

### WATER SYSTEMS

- + Proper drainage to facilitate stormwater management (e.g., pervious pavements)
- + Incorporate bioswales to capture and filter rainwater
- + Incorporate non-invasive, low-maintenance & drought-resistant plantings
- + Design to capture adjacent building's rainwater

### SEATING

- + Provide accessible seating on every block
- + Street trees to provide shading at benches

### COMMUNITY

- + At least one community &/or resident-led designed garden, art space, or other in each green finger
- + Educational kiosks
- + Create open spaces for informal forums, public gatherings, information economies (i.e., vendors), etc

### TRANSPORTATION












- + Bike parking on each block; in highly visible locations
- + Mini-solar power stations at parking spaces in Fanno Creek District

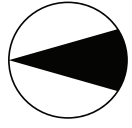
### PRIVATE REALM

- + Interacts and is cohesive with the public realm
- + Design supports "eyes on the street"
- + Heavily influenced and shaped by green finger in Fanno Creek District
- + Less influenced and shaped by green finger in Village
- + Human-scaled design

Figure 26: Green Fingers, Design Principles and Design Standards.

# ILLUSTRATIVE IMAGERY

-  GREEN FINGER (PUBLIC)
-  GREEN FINGER (PRIVATE)
-  PED PRIORITY
-  GREEN FINGERS
-  TRAILS/MULTI-USE PATHS
-  SQUARES & PLAZAS
-  PUBLIC PARKS & OPEN SPACE
-  CREEK NETWORK
-  LOWER VALUE HABITAT
-  MODERATE VALUE HABITAT
-  HIGHEST VALUE HABITAT



0 125 250 500 Feet



Figure 27: Green Fingers Concept, Illustrative Imagery



In the Fanno Creek District, households would be more likely to have private backyards yet the Green Finger could enhance the area by activating nature in the public realm, drawing people out from their private enclaves. Whereas in the Village, households would most likely not have their own private backyards, so in addition to development in the public realm the Green Finger could create semi-private green spaces within the center of blocks. This design framework calls for private green spaces, but is flexible in its application. These spaces could take the form of public space or private plazas nestled away from the street or a semi-private community garden on the edge of the block.

One principle of this design study incorporated the need to transition from softscaped natural space in the lower density areas to more intensive hardscaped designs, integrating natural elements in the higher density, more urban-like parts of downtown. This supports the principles of maintaining a green edge, and utilizes urban design to create “optional spaces” within the city that are accessible to everyone. It also supports eco-industrial design by integrating stormwater management and wildlife habitat in urban form, and supports walkability.

## **Red Rock Creek District**

The Red Rock Creek District represents an opportunity for increased commercial and residential uses within the context of an array of limitations and constraints, including major automobile infrastructure and a neglected wetland area. The Red Rock Creek District is bounded on three sides by hard, impermeable edges—namely that of Highway 217, Highway 99, and Hall Boulevard. On its southern end, the area’s edge is delineated by Red Rock Creek and sensitive habitats among a large pond and surrounding wetlands.

# Red Rock Creek District

1. Focus density away from Highway 217 and 99W toward SW Hall Boulevard. Most of which will be "high" density mixed-use residential/commercial.
2. Create coworking, green and technology focused industry along the highway corridor which moves residential away but improves access to highways for industrial movement.
3. Improve connectivity of greenspace network by restoration of Red Rock Creek and expansion of this space into parkland.

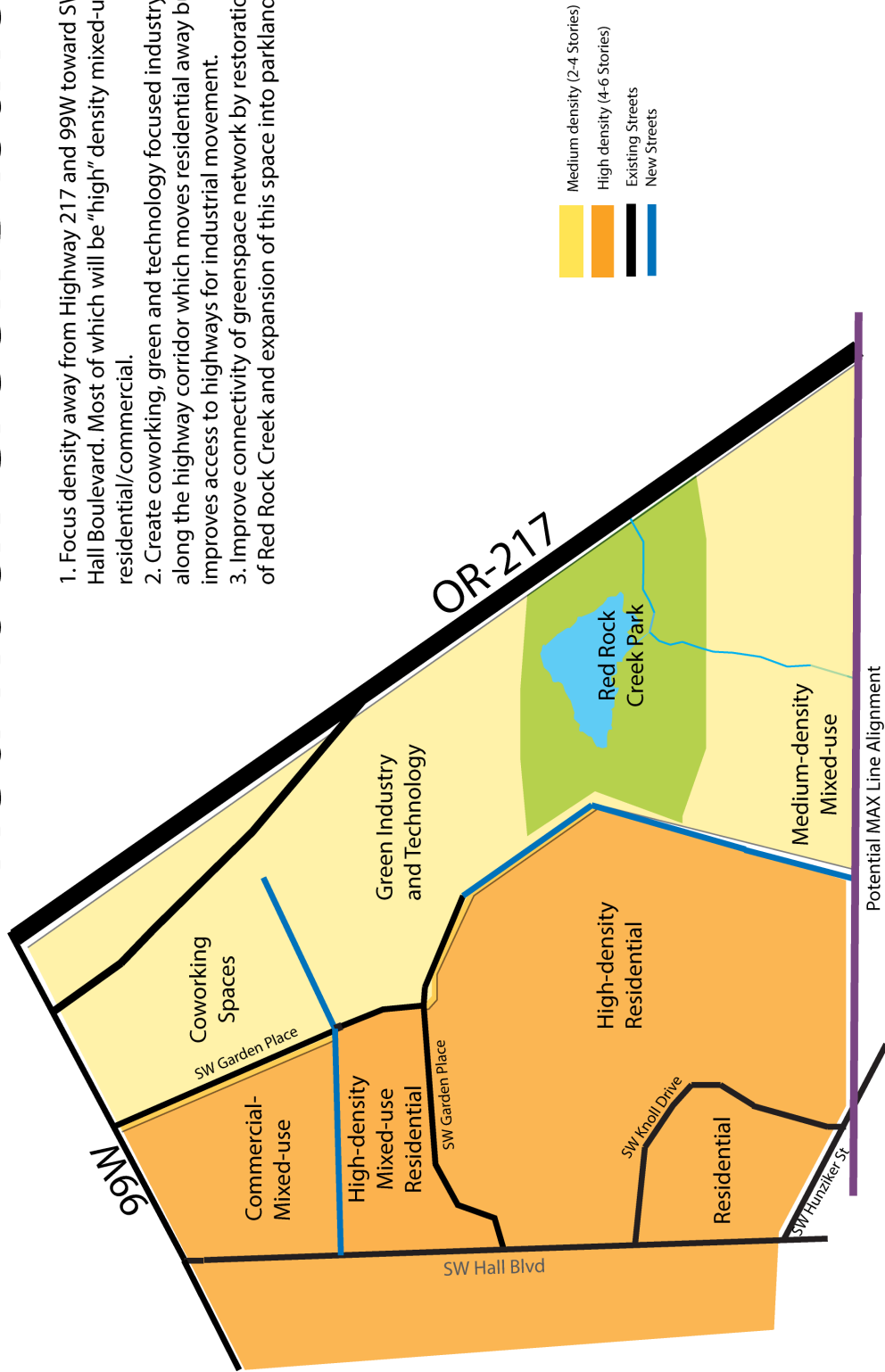


Figure 28: Red Rock Creek District Concept, Land Use and Density.

This sub-area concept pushes more intense development and higher density away from the peripheral highways and towards Hall Boulevard. In this subsection of the Red Rock Creek District, the existing commercial land use could intensify, adding mixed-use residential and commercial mixed-use development. This could create a gradual tapering off of intensity as development moves further away from the higher density of the Village.

In the area east of SW Garden Place, the density tapers off significantly and calls for a development pattern that embraces an exchange with a vibrant natural ecosystem. In addition to a concept for the built environment, there would be significant rehabilitation of Red Rock Creek and the abutting wetlands. This could allow for resource exchanges between complementary green industrial uses and allow for recreation and access to nature in the surrounding residential development. Implementation of the sub-area plan for the Red Rock Creek District could be strategic and opportunistic. The first phase could focus on the restoration and enhancement of the existing natural ecology. Followed by infill of increased density that could intensify as it nears the Village and Civic Heart of district, where the arrival of the MAX light rail into the specific sub-area could compliment pedestrian flow.

# Opportunity Site: Parking Lot to Residential

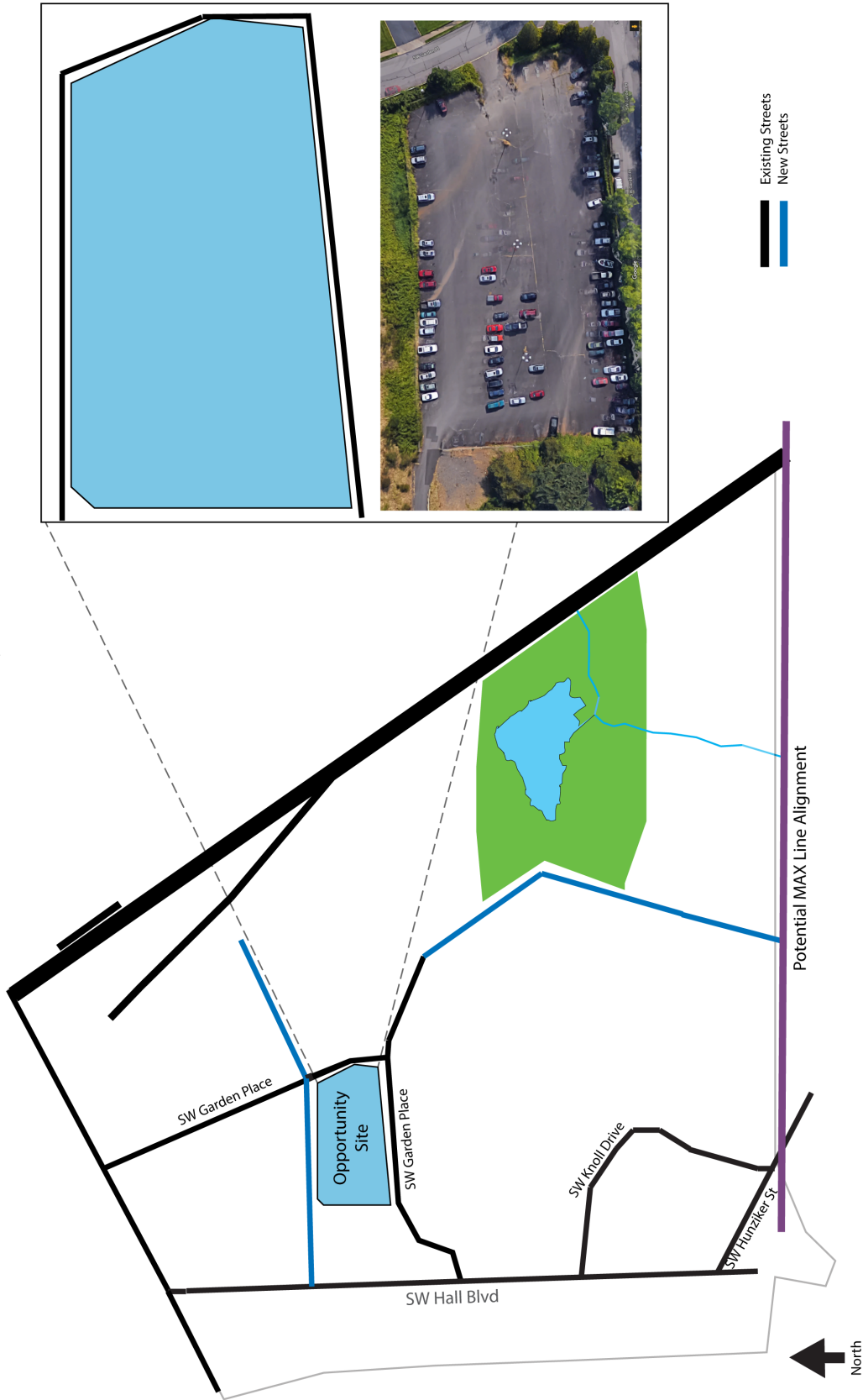


Figure 29: Red Rock Creek: Opportunity Site Detail.

## Street Design Guide

This concept identifies hierarchies of street typologies in downtown Tigard. Infill streets, which create a granular *pedestrian priority network* that transect the existing street grid to create human scaled streetscapes where walking is prioritized connect people to parks and public spaces. The current automobile oriented network of streets could be retrofitted to become *complete streets*, friendly to all modes of transportation, including biking and transit. And, these streets could serve as a way of accessing public parking adjacent to the multimodal hub. A transformed Hall Boulevard could allow for larger volumes of vehicle access, calmed at the center adjacent to the Civic Heart and TriMet MAX Station.

### Combined Network

Context: The city of Tigard has established an ambitious goal of becoming the most walkable city in the Pacific Northwest. In order to achieve this ambitious walkability goal, creative and innovative design strategies need to be adopted. The pedestrian priority network creates a fine-grained block size conducive to capturing and promoting walking demand. These streets operate at slow speeds with shared spaces.



Figure 30: Downtown Streets, Combined Network.

## Pedestrian Priority Network



Figure 31: Pedestrian Priority Network Detail.

### Urban Design Principles

- Walking demand and block size
- Three types of activities



Figure 32: Shared streets are designed for all modes to mix, with pedestrians setting the pace.



Figure 33: Shared streets are designed for all modes to mix, with pedestrians setting the pace.

### **Pedestrian Priority Network | Village District**

*Future Vision:* Within the Village District, a pedestrian priority network would create the smallest block sizes. The streets in this section are narrow and designed without traditional curbs to allow people walking to utilize the entire right-of-way. These streets are social spaces, where people linger and socialize with one another. Adjacent commercial activity, the street is both lively and safe. Other modes of transportation are allowed to enter this zone, but are “guests” in a “pedestrian environment.”

### **Pedestrian Priority Network | Fanno Creek District**

*Future Vision:* Within the Fanno Creek District underway, the pedestrian priority network could take on a slightly different character. These spaces could embrace the nearby natural habitat with harmonious infusions of greenery and vegetation. These streets could allow residents who use vehicles to access their residences, slowing speeds for safe walking. Kids could play in the street without fear of being injured and neighbors could congregate outside their homes in small plazas connected by streets.



Figure 34: Shared streets could and should include elements to support the natural ecology and social environment.



Figure 35: Shared streets could and should include elements to support the natural ecology and social environment.

### **Pedestrian Priority Network | Innovation District**

*Future Vision:* Pedestrian priority streets within the Innovation District could embrace the adjacent industrial land use character of the area while sharing the central design standard of curb-less streets. Rights-of-way in this section could be slightly wider allowing for freight access. Vehicles could still operate as guests. Furthermore, block sizes could be slightly larger in this area due to lower pedestrian demand.



Figure 36: Hardscaped streets and plazas allow workers and their families places to relax and socialize in public.





Figure 37: Hardscaped streets and plazas allow workers and their families places to relax and socialize in public.

**Complete Streets**

Context: A network of complete streets could provide sufficient multi-modal access throughout the sub-areas. Streets could build from recent steps that Tigard took to improve streetscape design and quality and thus, streets could be more traditional in design including traditional curb and sidewalk design. Bicyclists could be protected from private vehicles and buses. And, streets could manage stormwater with bioswales and greenery.



Figure 38: Complete Streets Network

## Urban Design Principles

- Transportation hierarchy
- Calm the center

### Complete Streets | Main Street Detail

*Future Vision:* The high level of design applied to the western section of Main Street is continued along the entirety of the corridor. As street parking could become less essential, improved bicycle facilities could be installed. And due to the high level of commercial activity happening on Main Street, the sidewalks could be widened to accommodate vending and outdoor seating. Finally, space in the right-of-way could be reprioritized for social uses, such as outdoor seating and improved transit shelters.



Figure 39: Main Street reimagined with an emphasized public realm.

### Complete Streets | Commercial Street Detail

*Future Vision:* Commercial Street could be improved to match the level of design applied to Burnham Street and include stormwater management. As infill development occurred, Commercial Street could gradually become a “second Main Street” connecting Old Town to the Innovation District. Slowing vehicle speeds and sharing lanes could allow for comfortable access via bicycle. Street parking could be added on one side of the street to accommodate increased density of activity as development opportunities were realized.



Figure 40: A complete streets street can allow full access to vehicles without compromising the pedestrian realm.

**Complete Streets | Ash Street Detail**

*Future Vision:* Ash Street could be extended across the railroad to increase connectivity in the Village District. Traffic calming could be used in this section to discourage cut-through vehicle traffic generated by those avoiding the “calmed center” near the Civic Heart. Finally, pedestrian activity could increase as one reaches the center of the Village District as on-street parking spaces were removed to create wide sidewalks where downtown Tigard residents could socialize.



Figure 41: Painted intersections can enhance the beauty of the street, while also serving to calm traffic.

## Hall Boulevard Transformed

*Context:* Hall Boulevard is currently owned and operated by the Oregon Department of Transportation. Once the city of Tigard is able to gain ownership of this major arterial, major steps could be taken to transform the streetscape and make it more compatible with its walkable urbanized future. Though primarily a vehicle access street, the street could be calmed as one approaches the multimodal transit hub at the center of study area.

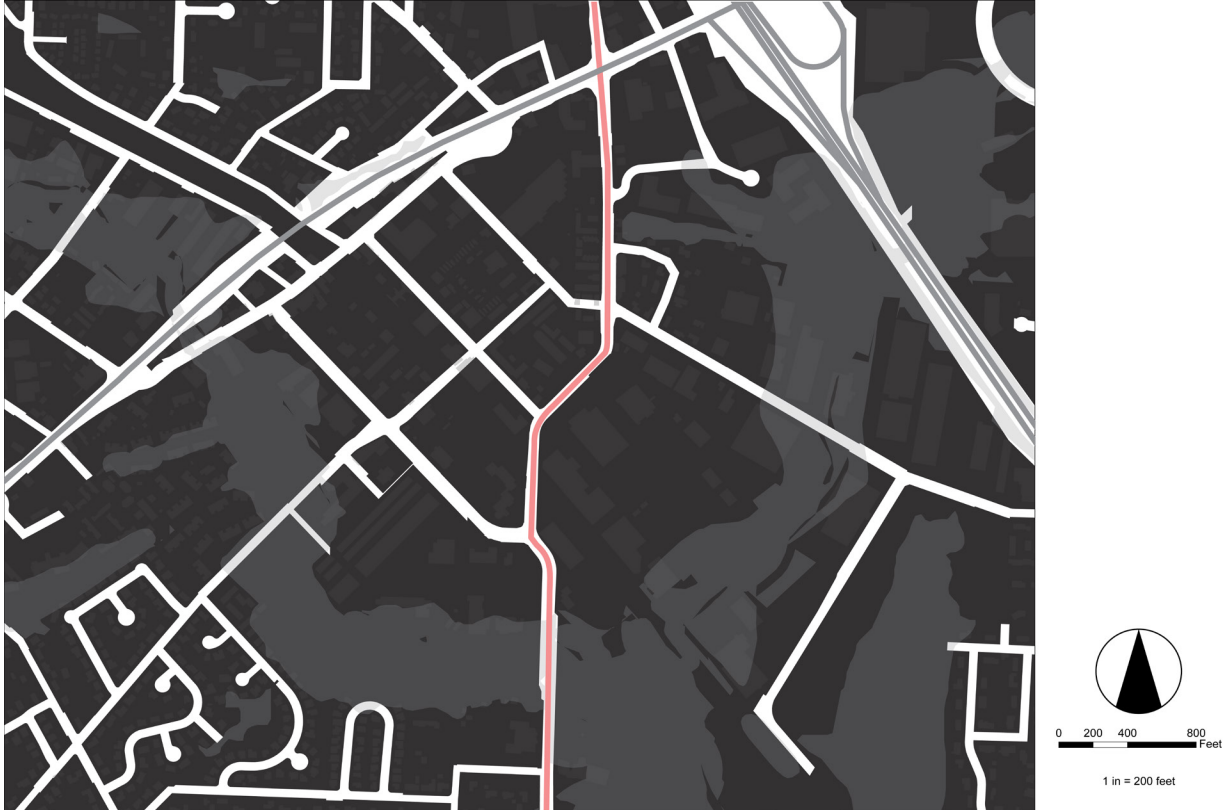


Figure 42: Hall Boulevard

### Urban Design Principles

- Transportation hierarchy
- Calm the center

### Hall Boulevard | Calmed Center

*Future Vision:* At the center of the study area, Hall Boulevard could be completely transformed to discourage through traffic movement and allow for easy crossing between the Civic Heart and the TriMet Station south of the boulevard. A wide center median would allow for people walking between the Civic Heart and Innovation District to cross the street while only navigating one direction of traffic at a time. And, signals could be synced with the approaching light rail train to effectively shut down the street when trains arrive.



Figure 43: A raised median can calm traffic and provide a safe place for people crossing to access transit.

### Hall Boulevard | Approaching The Center

*Future Vision:* As one moves closer to the center of the study area, traffic calming could be used to slow vehicles as they approach. Traffic would then be encouraged to divert away from the center into two centralized parking areas within close proximity to the multimodal transit hub. Street parking could be added to allow access to development facing the boulevard, and bicyclists could travel safely along this section in protected bike lanes. Street trees could line this section, which would help improve air quality and calm traffic.



Figure 44: Wide sidewalks and street trees can help improve the pedestrian experience on busier automobile streets.

## Hall Boulevard | At The Periphery Of Study Area Detail

*Future Vision:* At the periphery of the study area, Hall Boulevard could take on a more vehicle-prioritized character by dedicated turn lanes that would be present at the intersections of Burnham Street and Commercial/Hunziker Street. A lower level of development activity could require less street parking allowing for turn lanes. And, improved sidewalks with street trees could improve the experience of people walking along this section of the boulevard as they approach the Village District and Civic Heart.



Figure 45: Street vegetation and a raised bikeway can help calm a busy boulevard.

## Conclusion

The land use framework and sub-area concepts developed by the students participating in the PSU Urban Design Workshop represent a departure from current patterns of development in Tigard. The students concluded that based on existing conditions, regional context, societal forces, and the development of light rail serving downtown, an innovative strategy for new development is feasible. This new land use framework could help the city to realize its ambitious vision of becoming the most walkable city in the Pacific Northwest. In order to make this vision a reality, a reimagining of zoning, density, community support, open space, and circulation would be necessary. And, as demonstrated in the sub-area concepts developed by students, these changes could make the area more sustainable, vibrant, and livable, while preserving affordability and accessibility for all. The products created in this class bolster the idea that Tigard is presented with an opportunity to leverage a major transit investment to move closer to the visionary goals set by elected leaders. Implementation would require collaboration from public and private stakeholders, as well as robust community engagement. However, it could yield a future that is uniquely Tigard.

## References

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