ALDERWOOD

neighborhood

Bellingham, Washington

Winter 2016, Spring 2017
Urban Planning Studio
Western Washington University

AN URBAN TRANSITIONS STUDIO PROJECT

ALDERWOOD NEIGHBORHOOD

BELLINGHAM WASHINGTON

Huxley College of the Environment
Western Washington University
Bellingham, Washington 98225 USA
2017

We are grateful for the generous assistance received from our Alderwood community partners, the City of Bellingham Departments of Planning and Community Development and Public Works, and the Whatcom Transit Authority (WTA). The views, opinions, and recommendations expressed in this report are solely those of the study's authors. As a university learning exercise in community planning, the views expressed herein do not necessarily represent the City or the WTA.

The study's overarching aim is to evaluate urban growth opportunities and community improvements associated with the process of transitioning the Alderwood community from a rural, unincorporated Urban Growth Area (UGA) into an urban neighborhood, pursuant to the policies of Washington State's Growth Management Act.

A downloadable PDF file of this report is available at
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Acknowledgements and Dedication

Meaningful community engagement is essential to effective community planning. When community residents participate in developing a future image of their community, they help to ensure that planning efforts are directed toward meeting locally expressed needs and desires in addition to meeting city-wide planning goals and policies. This project would not be possible without the engagement of many residents from the Alderwood community and the funding assistance provided by the Whatcom Community Foundation.

This study is dedicated to the current and future residents and property owners of the Alderwood community in the hopes that the ideas recommended in this study for bringing about improvements to the neighborhood may inspire the community's transition into a more vibrant and livable future Bellingham urban neighborhood.

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1. To the Community Of Alderwood

This study, conducted by WWU undergraduate urban planning students in two senior level planning studio courses, examines land use conditions and opportunities for sustainable development in the Alderwood neighborhood, an unincorporated area of Whatcom County that has been designated as part of Bellingham's Urban Growth Area (UGA). As a UGA, Whatcom County and the City collectively anticipate the transition of this rural neighborhood, through annexation, as a future Bellingham urban neighborhood.

Annexation into the City implies two important expectations. First, that the neighborhood has the potential for developing urban densities in order to accommodate a portion of Bellingham's future population growth. Secondly, that the neighborhood should be improved with urban-level services that include increased public services, such as police and fire protection, as well as improvements to infrastructure, including streets, streetlights, sidewalks, bikeways, parks, trails, and other improvements.

A key Bellingham strategy for accommodating its future population growth is by developing concentrated urban development in defined neighborhood centers, referred to as "urban villages." The idea behind urban villages is to create urban levels of population concentrations that afford broad housing opportunities for residents of all incomes, along with the convenience of retail and job opportunities servicing the entire neighborhood. The urban village form of development seeks to promote pedestrian-oriented neighborhood conditions to lessen the reliance on vehicle dependency. Another important feature of urban villages is the provision of efficient public transit services that connect the neighborhood to other areas in the City.

The planning study was conducted over a two-quarter period during winter and spring quarters, 2017. The study examined ways to achieve Bellingham's land use policies as well as to adapt professional planning principles for improving the social, environmental, and economic conditions of communities through the master site planning process in order to promote sustainable urban community development.

The objective of the study is to recommend strategies for future neighborhood development informed by the expressed needs of the community and in compliance with local and state growth management goals and policies as well as best management community planning principles. The recommendations contained in this report emphasize sustainability principles for community development.

2. The Alderwood UGA: Transitioning into an Urban Neighborhood

Students engaged Alderwood residents to identify neighborhood priorities and their preferences for future development. A community workshop was held in February, 2017, to help inform students about local problems, opportunities, and priorities. Students conducted a visioning sessions and a community mapping exercise with residents to ascertain community concerns and preferences. The results of the workshop helped to identify a vision for improvements to the neighborhood.

A land use analysis was performed to identify potential areas where urban development might occur, as well as neighborhood-wide infrastructure improvements that are needed in order to comply with Bellingham's neighborhood improvement standards.

In addition to recommending future zoning for the neighborhood that encourages both the preservation of existing residential areas as well as opportunities for further "infill" development, the study also identified four locations where future urban village development may be feasible in order to best accommodate future population growth.

A second community meeting presenting initial findings from the research was conducted in March 2017 for feedback on the study's initial findings and recommendations. Infill development has been identified as one of the best strategies for utilizing our remaining residential land resources within the City. This form of development focuses on efficiently utilizing vacant or underused land at urban levels of development, which helps to reduce urban sprawl while encouraging long-term sustainability and the provision of a broad range of housing options to accommodate all resident income levels.

The City has identified the Alderwood Urban Growth Area (UGA) as a high priority area for annexation. This study incorporates an initial analysis of community issues and opportunities for Alderwood neighborhood development, and is intended to serve as a community resource during the process of annexation and future neighborhood planning.

The overall goal of this study is to promote neighborhood identity, livability, diversity in land uses, and the efficient use of land. The challenge is to identify a suitable mix of land use alternatives that promote neighborhood cohesion and a more functional and livable urban neighborhood. Development and infill strategies presented in this report emphasize the inclusion of new and diverse land uses, including neighborhood infill on underutilized parcels as well as the introduction of several urban village sites to provide housing options and neighborhood-scaled retail services to foster community synergies and create a strong sense of place.

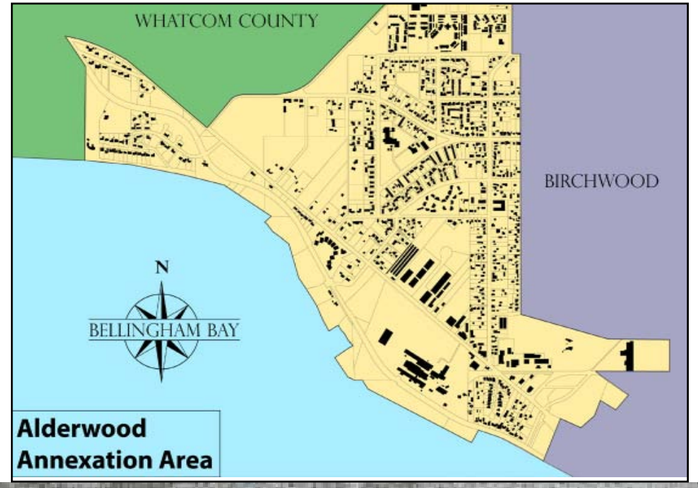
Part I: Neighborhood Analysis

3. Bellingham Neighborhoods: Design Goals and Policies

3.1 Land-Use Planning Goals

To ensure the annexation of the Alderwood Neighborhood will be incorporated and planned in a similar manner to the rest of the city, the planning study carefully considered the goals and policies of the Bellingham Comprehensive Plan in order to guide its development. Below are the main goals along with the policies that support them. The city's policy guidance helps to ensure consistency in future development for the Alderwood Neighborhood and other areas under consideration for incorporation into the city.

Goal LU-2 foster vibrant urban villages. This goal is further supported by:



Policy LU-12
Encourages intensely developed mixed use areas where infrastructure, transit and other public facilities can be provided. It also encourages that newly implemented urban villages also provide a mix of housing and job opportunities for the community that it will serve in order to greatly reduce the distance people have to travel to work.

Goal LU-5 Support the Growth Management Act's goal to encourage growth in urban areas.

Policy LU-44
Ensure that higher-intensity development, especially mixed use development, is concentrated into an urban village. Bellingham's population is growing at a rapid pace we need to make sure that our future use of developable land will make sense in the long term.

Policy LU-45
Supports this notion by ensuring that our future land use plans accommodate a population of 124,157 and provide 84,788 jobs in the entire city of Bellingham by the year 2036.

Policy LU-53
This policy proposes that annexations should be considered if they:

- enhance or improve the quality of life for residents and business owners
- improve land use compatibility
- promote a more orderly development

Policy LU-60
Encourages the assembly and redevelopment of underdeveloped parcels.

Goal LU-6 Use transparent processes and involve stakeholders in decisions.

Policy LU-63
Encourages active, broad based citizen participation when considering plans, regulations and development proposals.

Policy LU-64
Develop innovative techniques to reach out to underserved or underrepresented populations that aren't typically involved in planning decisions.

3.2 Environmental and Public Asset Goals

Environmental

The Environmental Chapter of Bellingham's Comprehensive Plan emphasizes nine goals addressing environmental protection, four of which are relevant to development in the Alderwood Neighborhood (City of Bellingham, 2016, p. 2):

Goal EV-3 Protect and restore ecological functions and habitat.

Goal EV-4 Limit urban sprawl and promote sustainable land use planning.

Goal EV-6 Conserve and maintain natural resources, including the urban forest.

Goal EV-9 Promote interdependence of environmental, economic, and social interests.

Goals 3 and 6 are most concerned with protecting and maintaining the natural environment, whereas goal four focuses on avoiding the consumptive practices of urban sprawl and fosters sustainable planning. Goal 9 emphasizes the importance of balancing social, economic, and environmental aspects of sustainability. These ideas are vague, meaning there are various methods to apply them to policy applications. Planning for the Alderwood Neighborhood should carefully consider these policies when making decisions on land uses, intensity of developments, and conservation of green spaces.

Public Assets

Often, urban green spaces are open to the public in the form of parks, trails, or other recreational areas. While the Alderwood Neighborhood does not currently have many public assets, opportunities exist for open space and recreational improvements. The following goals from the Parks, Recreation, and Open Space Plan from the City of Bellingham Comprehensive Plan relate to the future improvements in Alderwood (City of Bellingham, 2016, pp. 28-40):

Goal 5.1.1 Provide a high quality, parks, recreation and open space system for a diversity of age and interest groups.

Goal 5.2.1 Provide an interconnected system of accessible multi-use trails and greenway corridors that offer diverse, healthy outdoor experiences within a rich variety of landscapes and habitats, with connections to public facilities, neighborhoods and business districts.

Goal 5.3.1 Provide high quality recreational programs and services throughout the community that provide fun, educational, accessible and safe environments for people of all ages, ethnicities, and abilities.

Goal 5.4.1 Contribute to a healthy environment in the selection of new properties, and the development and maintenance of park facilities.

Goal 5.6.1 Create effective and efficient methods of acquiring, developing, operating and maintaining facilities and programs that accurately distribute costs and benefits to public and private interests.

Goal 5.7.2 Promote water conservation at all park facilities.

Goal 5.9.1 Provide equitable access to park and recreation facilities and services to all residents of our community.

Current public utilities in the Alderwood neighborhood are almost entirely lacking. There are no streetlights or bus stops. Both of these are critical for having a safe and accessible neighborhood. Both of these are critical for having a safe and accessible neighborhood. By including streetlights and bus stops we help improve the interconnectivity of the neighborhood. Previously there was no public transportation in the neighborhood. With the addition of bus routes, it will make achieving the community goals easoer as more community members receive services. There is currently enough open space for the addition of parks to be accessible along a bus route.

The "Gregory Open Space" to the southwest of Alderwood Elementary School can make an excellent trail and open space that could provide a connection to the waterfront. The waterfront is currently an underdeveloped recreational area with little public access and few opportunities for active recreation. The public also does not have access to potential recreational areas such as the dock near the Lehigh Northwest Cement Company. The Capital Facilities and Utilities Chapter of the Comprehensive Plan include the following goals for application to future development of the Alderwood Neighborhood (City of Bellingham, 2016, p. 3):

Goal PRO-1 Provide a high quality, parks, recreation and open space system for a diversity of age and interest groups.

Character of the Neighborhood

The Community Design chapter of the Comprehensive Plan encourages creation of an interconnected, walkable area with development geared towards infill. The relevant goals are as follows (City of Bellingham, 2016, p. 3):

Goal CD-1 Promote streetscapes that enhance the economic vitality and overall visual quality of the City, support the circulation network, and support pedestrian-scale streets and patterns of activity.

Goal CD-2 Express the City's distinct community identity and sense of place through improvements to the appearance of new development, commercial centers, urban villages, transit corridors and streetscapes.

Goal CD-3 Establish and reinforce district and neighborhood characteristics recognized both within the community and throughout the region.

Goal CD-4 Provide a well-designed, pedestrian-friendly, and community-oriented environment.

Goal CD-5 Ensure that the design and development of urban villages and transit corridors convey a positive image of the district they are located within, contribute to the economic vitality and perception of the City, and improve visual and physical transitions into adjacent neighborhoods.

Goal CD-6 Encourage contextually appropriate infill development projects and property renovations.

Goal CD-8 Interconnect parks and natural features by establishing an integrated network of trails, parks and open spaces; maintaining existing trees; and incorporating landscaping into new developments.

Because these goals focus on how public spaces should be developed, the community should be involved early and continuously in the design process .

3.3 Affordable Housing Goals and Policies

Statement of Community Vision

The vision for the Oeser Site Urban Village is to create an affordable, safe, and equitable community for all residents regardless of income. The plan does this by providing housing for a wide range of incomes.

Bellingham's 2016 update of the Comprehensive Plan outlines three goals that pertain to affordable housing in the City. Below the goals and policies are evaluated in supporting affordable housing in Alderwood.

Goal H-1: Ensure that Bellingham has a sufficient quantity and variety of housing types and densities to accommodate projected growth and promote other community goals.

Goal H-2: Foster houses that are safe, healthy, livable, and affordable for all income levels in all neighborhoods.

Goal H-4: Support housing options for special needs populations.

Policy H-1: Support high-density and mixed commercial/residential development in the City's urban villages, high capacity transit corridors connecting the villages and other appropriate areas that allow people to work, shop and recreate near where they live.

Policy H-9: Update the City's ADU ordinance with priorities on Identifying appropriate areas for detached ADUs; and improving permitting and enforcement.

Policy H-15: Support fair and equal access to housing for all persons, regardless of race, religion, ethnic origin, age, household composition or size, disability, marital status, sexual orientation or economic circumstances.

Policy H-16: Increase the supply of affordable rental and ownership housing that is context sensitive throughout the City, especially in areas with good access to transit, employment, educaution and services.

Policy H-18: Continue evaluating the recommendations of the City's Community Solutions Workgroup on Affordable Housing, including:

- Detached ADUs, small lot and cottage housing in single-family zones;
- Impact fee reductions for ADUs;
- Reduced parking requirements; and
- Other code changes and incentives that allow and encourage well-designed infill development.

Policy H-19: Continue providing incentives to support housing affordability (e.g. density bonuses, expedited permitting, multi-family tax exemption program and fee reductions) and consider including workforce housing as part of certain incentives programs.

Policy H-21: Identify surplus public and quasi-publicly owned land that could potentially be prioritized for housing that is affordable to low- and moderate-income households.

Policy H-46: Work with agencies, private developers and nonprofit organizations to locate housing to serve Bellingham's special needs populations, particularly those with challenges related to age, health or disability.

Policy H-49: Support implementation of the Whatcom County Plan to End Homelessness.

Policy H-52: Foster and support partnerships that have proven to be successful in reducing homelessness, preventing homelessness and assisting the chronically homeless with needed care.

Evaluation of Goals/Policies

Goal H-1 supports the construction of affordable housing in Alderwood as a variety of housing types increases affordable options, such as Accessory Dwelling Units (ADUs), carriage housing, and cottage housing. In addition, development in Alderwood, a designated Urban Growth Area.

The development of an urban village with higher density, mixed-income units and use of the infill toolkit in Alderwood will increase the availability of affordable units in the City, therefore supporting the above policies. In addition, development of affordable units in Alderwood supports Bellingham's policies regarding equity, as it will provide housing for a range of social groups, including minority race, non-English speaking, low-income, and homeless populations.

Goal H-2 directly supports the need for affordable housing in Alderwood. The City can meet their goal of increasing affordable housing units by constructing affordable housing in the Alderwood Neighborhood, for a cheaper price than developing within City limits.

Development of affordable units in Alderwood would directly support the above policies. The construction of a variety of housing types and therefore a range of prices, the reduction of fees and requirements, and other incentives to developers for in-fill projects, could all be utilized in the Alderwood Neighborhood to increase affordable housing in the City. Additionally, public land within Alderwood would make an ideal location for affordable housing units.

Goal H-4 supports development of affordable housing in the Alderwood area as special needs populations (i.e. homeless or senior populations) need affordable living options and are among those most vulnerable in the community.

Alderwood provides a perfect opportunity to construct housing using land with lower assessed values for the City's most vulnerable populations, including our homeless population. Development of affordable and transitional housing would decrease rates of homelessness in the Alderwood neighborhood, helping to meet the goals of Whatcom County's Plan to End Homelessness.

3.4 Transportation Planning Goals and Policies

Statement of Community Vision

The Alderwood Neighborhood should be provided with safe street infrastructure and well-connected multimodal transportation through the annexation process with the City of Bellingham (COB). Residents shared their navigation experiences in Alderwood and preferences for future mobility services through mobility map surveys presented during the recent community workshop. COB Transportation Plan goals and policies are identified to support future improvements for Alderwood to meet city standards for urban neighborhoods. Within Alderwood, safety and connectivity improvements should be focused to connect residents with Alderwood Elementary School and the proposed urban village sites.

Goals and Planning Policies

Goal T-1 Limit urban sprawl by linking land use and transportation planning.

Policy T-1 Continue to develop and implement plans, programs, and regulations that incentivize infill and emphasize multimodal transportation in urban villages.

Policy T-2 Balance land use efficiency with transportation safety and mobility by prioritizing street connectivity within the City limits, mobility for people and goods, and high occupancy vehicles over single-occupancy vehicles (SOVs).

Goal T-2 Provide safe, well-connected, and sustainable mobility options for all users.

Policy T-5 Connect missing links within the Citywide multimodal transportation network for all modes of transportation, including pedestrian, bicycle, transit bus, freight trucks, and private automobiles.

Policy T-6 Design multimodal transportation improvements on existing and new streets with the safety and mobility needs of all user groups considered and with priority emphasis placed on the most vulnerable user groups, as illustrated below.

Policy T-7 Provide mobility choices and opportunities for people with special transportation needs, including persons with disabilities, school children, senior citizens, and low income populations.

Goal T-3 Increase infrastructure for bicycles, pedestrian, and non-single-occupancy vehicle modes of transportation.

Policy T-9 Incorporate sidewalks, crosswalks, and bikeways identified in the Pedestrian and Bicycle Master Plans into all transportation capital improvements on public streets, wherever feasible.

Policy T-10 Work closely with WTA to support the WTA Strategic Plan, ensure that City and WTA policies are consistent, and prioritize transportation improvements that support transit ridership for neighborhood residents.

Policy T-11 Require all new development to construct sidewalks on all public streets identified as part of Bellingham's Citywide Pedestrian or Transit Network per City street standards (BMC 13.04). Where possible, sidewalks should be separated from roadways with landscape strips, street trees, rain gardens, or other low impact development techniques.

Policy T-12 Require all new development to construct bike lanes on all arterial streets identified as part of Bellingham's Citywide Bicycle Network per City street standards (BMC 13.04). Where possible, bike lanes should be constructed of pervious asphalt or concrete.

Policy T-13 Develop an administrative process that allows for departures from required infrastructure improvements in cases where no public purpose would be served by strict compliance with the required standard.

Policy T-14 Work closely with the Bellingham School District to prioritize the construction of sidewalks and bikeways to support Safe Routes to School.

Policy T-25 New transportation facilities should be sited, designed, and constructed to avoid

or minimize environmental impacts to the extent feasible, consistent with the mitigation sequencing requirements in the Critical Areas Ordinance.

Policy T-26 Develop innovative new methodology to measure, forecast, and mitigate negative impacts that new vehicle traffic may have on pedestrians, bicyclists, and public transit bus service when Transportation Impact Analyses are completed for new development.

Policy T-29 Assess all new development for Transportation Impact Fees to recover a proportional share of the costs of constructing planned transportation system improvements, including those in the Primary Pedestrian and Bicycle Networks that are necessary to accommodate the level of growth planned for 2016-2036.

Policy T-30 Continue to incentivize infill development and redevelopment with the Urban Village Transportation Impact Fee Reduction Program.

Goal T-6 Ensure that social equity needs are addressed in all transportation projects.

Policy T-31 Provide accessible pedestrian and bicycle facilities for all through equity in public engagement, service delivery, and capital investment.

Policy T-34 When communicating about multimodal transportation programs or projects, develop outreach materials that are accessible through various media to a wide range of constituents in multiple languages.

	Issues	Opportunities
Connectivity of Pedestrian Network	Broken network	Fill missing sidewalk sections
Connection to Mass Transit	Infrequent timing and few headways	Increase frequency and number of headways
Safety	Speeding, crime, lack of street lights	Roundabouts, speed bumps, stop signs, stop lights, speed radar signs, more street lighting
Auto-Pedestrian Safety	Lack of buffering between pedestrian and automobile pathways	Greenspace, stormwater infrastructure to add space between streets and sidewalks
Level of Service	Below existing Bellingham standards	Infrastructure improvements
Basic Bicycle Infrastructure	Limited to one portion of Marine Drive	Bike lanes, bike boulevards, and bike storage

Table Summary Identification of Issues and Opportunities

4. Community Priorities

4.1 Infill Capacity Workshop

The Alderwood Neighborhood community workshop resulted in useful feedback regarding future infill potential. The workshop proved to be a valuable learning opportunity for the class and for the participating Alderwood Neighborhood residents. After an introduction from Professor Nicholas Zaferatos and a brief presentation about annexation by City Planner Greg Aucutt, the infill capacity workshop was conducted. The workshop started with a brief description of the way infill capacity is calculated followed by instructions for the workshop and finally an invitation to provide feedback about the infill capacity.

Following this first workshop each participant provided feedback and meandered to the other stations. Below is a description of the workshop, valuable takeaways, lessons learned, and a conclusion of the findings. The infill capacity workshop began with a short introduction about the sign-up for developing an Alderwood Neighborhood Association followed by brief description of the process in which the infill analysis was conducted.

This capacity assessment represented a first step in determining opportunities for infill as well as establishing the importance of community feedback in addition to numerical assessment. Attendees then approached the infill capacity map and placed a colored pin on areas of particular interest. The different colors of the pins signify whether they would like to see No Change (Red), Single Family Residences (Yellow), Multi-Family Residences (Blue), or Commercial (Green). While they placed pins, students assisted the participants by providing further suggestions for the participants to consider. Additionally, the students carefully recorded comments that were associated with specific locations indicated by the participants. When finished, the participants made their way to other workshop stations.

Valuable information and learning resulted from the infill capacity workshop. The information gathered is used to help guide the future land use zoning choices. For example, some property owners voiced concern that they did not want the zoning to be changed on their lots. Also, certain commercial/retail amenities are desired in certain areas, and positive and negative feedback about certain parks was received. The participants received information about underutilized locations throughout the study area.

Low attendance is the biggest challenge to this type of community workshop. Perhaps this is an indicationof a need for greater community organization in order to foster increased resident involvement in planning for the Alderwood community. Regardless, the workshop proved a valuable learning process for the study.

4.2 Visual Preference Survey

As part of the community vision workshop, a visual preference survey was conducted by presenting a series of photographs depicting different development alternatives for the neighborhood. The format was a presentation of images representing different land use types from Bellingham and other communities was used to gauge residents' preferences regarding the forms of future development. The photos were organized in categories of land uses including residential single family, multifamily residential and mixed use. The participants were asked to identify their like or dislike for the given picture using red or green construction paper.

Results

A general trend regarding preferences in neighborhood style and character resulted from the execerise. In general, people like the idea of bike lanes but would prefer there be no parking alongside bike lanes for fear of being "doored." The participants from the community had a shared interest in multi-modal transportation, sidewalks, crosswalks, bike lanes, and bus stops within the neighborhood. Participants appear more willing to accept denser urbanization in their neighborhood with the support of additional amenities and services, such as a bus route. Another concentration of interest emerged for incorporating open spaces into most developments. There was a preference for yards and development centered around public spaces. Participants shared a desire for more apartments and townhouses, but also expressed interest in having diverse, multi-use blocks that incorporated housing and commercial uses. Several participants commented their preference for avoiding parking lots surrounding parks and open spaces, preferring connections through a system of trails. The participants were supportive of including community gardens, while open to the idea of having un-manicured spaces. The survey identified images of development styles that participants strongly supported and images that they did not support, including big box stores or development that was too dense. Preferences for commercial uses that focus on local food sources and small-scale shopping areas were also favored.

4.3 Ideation Mapping

Another workshop that was conducted was "ideation mapping" exercise, which is a technique for residents to indicate positive features of their neighborhood, critical issues that need to be addressed, and aspirations for the future of their community. Input received from the exercise represent important priorities considered in formulating a plan for the future development of the neighborhood.

Methodology

The purpose of ideation is to identify positive and negative elements, and future aspirations for a community. To acquire this information, a large aerial map of the neighborhood was presented. The community members were asked to place three different colored stickers to indicate where these positive and negative attributes are located. The results of this inquiry are included under "Results". Community member were asked three types of questions corresponding to the color of sticker chosen. Questions posed included:

What parts of your neighborhood do you like the best? What do you like about it? (Green dot)

Responses include: The creek, the elementary school, access to the beach.

What parts do you like the least? What makes this place undesirable? (Red dot)

Responses include: Lack of streetlights, lack of sidewalks

Where should money be invested to improve the community? And what types of improvements/ services would you like to see? (Blue dot)

Responses include: Parks, Laundromat, Police Station, Grocery store

One team member asked questions and assisted people in placing the dots on the map while another team member took notes about what the community member said. Each dot corresponded with a card that contained the same number to reference later.

Results

The places that people liked the most were parks, beaches, and trails. The people in Alderwood value the environment and enjoy taking their families and dogs outside. The places that people liked the least were dangerous intersections, places without sidewalks, places that were not aesthetically pleasing or were dirty, and places that homeless were living. Safety seemed to be important for the Alderwood Neighborhood and the negative spaces were places where people felt unsafe driving or walking through. In terms of improvements, people expressed interest in more parks and trails as well as a healthier corner store and a nice restaurant. They also provided recommendations for roads such as replacing one of the intersections with a roundabout to encourage people to drive slower.

Below is a record of input received by the participants in the Ideation workshop:

Positive Attributes (Green)

- This beach (Locust) is great. However, there are negative parts about it too such as the trail getting washed out, erosion, people camping out, and people tagging the underpass.
- Love this park!
- Love this park! It has a lot of open spaces for dogs to run around. It is convenient to park at Bellingham Technical College and walk to the park.
- Love this trail and wish it was longer.
- The wetlands are great. Preserving the environment is important

Negative Attributes (Red)

- Hazardous as a pedestrian, there are no sidewalks and a ditch.
- Bennet-McLeod is a dangerous blind corner.
- Dead trees, fences, and a dump site? “It scares me. I don’t know what it is.” Another woman said that it was a stormwater retention pond.
- It is called “dog poop park” because there is so much dog poop on the grass. A woman explained that she would not play there or have a picnic there. She also explained that it would be a great space to put a corner store in.
- Dangerous intersection. People look like they are turning, but then pull into the market.
- Illegal dumping.
- There are hiding spots around here. The playground was taken out a few years ago and now it feels dangerous to walk through.
- Not good to look at

Aspirations for Future (Blue)

- Would love to have a park there.
- Bizarre location, tough intersection, would love to see better (healthier) food at the market.
- Didn’t even realize all that was there – there is a big opportunity for something new.
- More trails would be great! There is a bald eagle’s nest there so maybe it is a protected space?
- The big arterial road feels like a barrier and people drive really fast (would recommend putting in a roundabout).
- Potential for the school to be moved to the location of the field within the next few years. More trails to get to school would be nice.
- Love the trails, wish they were longer.
- Would love to see a nice restaurant, not just fast food.

The image above is a copy of the map used at the community meeting. Community members placed green, red, and blue dots in places that were good, bad, or needed improvement. Each dot corresponds with a comment recorded above.

4.4 Mobility Workshop

Information gathered at the Alderwood workshop helped to identify a range of mobility improvements for the neighborhood. To gather information residents were asked to share their opinions of the current conditions and what is still needed in the area. Residents were asked where they see problems with the current transportation infrastructure and where they would like to see new infrastructure and improvements. In order to effectively map issues and potential areas for improvement in Alderwood, questions were posed in simple terms and technical planning jargon was avoided as much as possible. Questions to survey mobility infrastructure were posed in two categories: safety improvements and transportation improvements. Two large aerial photos of Alderwood were printed and displayed for each group of questions and colored pins were used by residents to precisely identify the locations where improvement and new infrastructure is needed. Below are the two sets of questions, along with the responses as represented by the placement of the color pins on the map:

Safety map

- Where would you like to see accommodations for physical disabilities? (Red)
- What areas need street lights? (Yellow)
- Where should new crosswalks be placed? (Blue)
- Where would you like to see bus stops? (Green)
- Where should there be stop signs or stoplights? (Orange)

Transportation map

- Where could the roads be improved? (Red)
- Where would you like bike lanes? (Yellow)
- Where should new sidewalks be placed? (Blue)
- Where are cars driving too fast? (Green)

Residents in attendance showed strong interest in the exercise and provided generous feedback through the prompted questions as well as additional insight. One major concern from participants is the potential circumstance of increased taxes from the annexation of the Alderwood Neighborhood into Bellingham. Another aspect of workshop participation was non-participation in the primary activities; some residents did not want to place pins to request new infrastructure out of expressed fear of increased taxes to fund the improvements, concern that placing pins would change someone else's answers, and concern that placing pins could influence the community in a way that would not benefit collective interest. The two maps used in the mobility activity are displayed below with the results of the questions, posed at the event. The pin placements of participants are represented by the respectively colored points on each map.

Left Map: locations where residents placed pins to indicate identified transportation improvements or needs not currently available to the community. From these results, participants from the Alderwood Neighborhood are primarily seeking streetlights along residential streets as well as crosswalks at intersections with arterial roads such as Marine Drive. Without COB policy and funding, infrastructure in the Alderwood Neighborhood is adapted to meet Whatcom County road standards. By county policy, "urban streets typically require curbs and gutters with catch basins and underground drainage systems" (Chapter, 2004) and this illustrates most of what is seen in residential areas of Alderwood. Marine Drive is an exception to the Alderwood Neighborhood's transportation infrastructure with sidewalks and ADA accommodations.

Right Map: Locations where residents placed pins to indicate identified safety improvements or needs not currently available to the community. Infrastructure was focused on sidewalks, primarily on residential roads. The safety aspects of mobility focused on both road improvements through surface development, such as repaving streets and development of sidewalks, and bike lane and speeding signage. This aligns with Policy CD-2 which promotes "attractive alternative modes of transportation." The installation of "physical buffers between the sidewalk and traffic such as site-appropriate street trees and landscaping…"

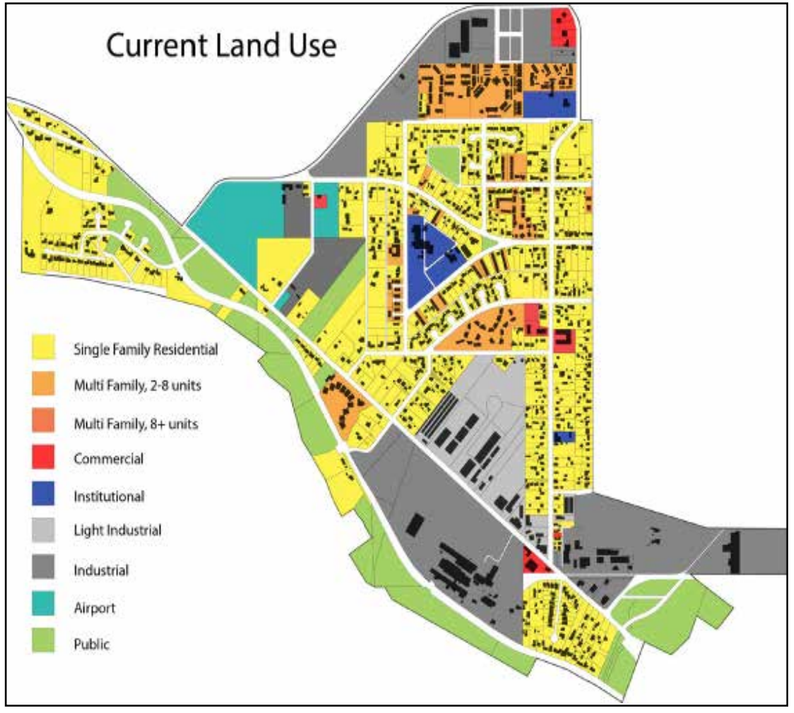
5. Land-Use Analysis: Infill Capacity

5.1 Existing Conditions

The City of Bellingham faces conditions of continuous population growth, yet the developable land is relatively fixed. This creates a dilemma for city planners: how to accommodate the influx of a growing population without continually expanding the city limits. The most reasonable answer is to promote greater efficiency in the use of our land area through increased density in already developed and serviced areas. This is referred to as infill development and is a technique that Bellingham has adopted as part of its urban growth management strategy, and reflected in the city's comprehensive land use goals. The main goals of infill development are to ensure a more efficient use of developable land while increasing the opportunities of affordable housing throughout the city.

Increased density and introduction of mixed land uses support residents in a neighborhood by potentially reducing housing prices through increased efficiencies associated with housing opportunities. A higher density better supports the use of public transit systems while also locating people closer to jobs and sources for retail and other services.

This aligns well with one of Bellingham's main goals of increasing the walkability of the neighborhood in order to reduce auto-dependency. Many studies show that designing a neighborhood with a focus on walkability leads to a healthier population because more people are willing to walk to their destination rather than drive.



In order to better support both current and future neighborhood population, it is equally important to give consideration to other important services such as improved parks, trail systems, local shops, and services that are designed to meet local resident needs.

Flexible rules for setbacks, parking, and overall building lot coverage are ways that can increase urban densities provided that accompanying improvements are made to ensure the livability of the neighborhood.

5.2 Infill Analysis

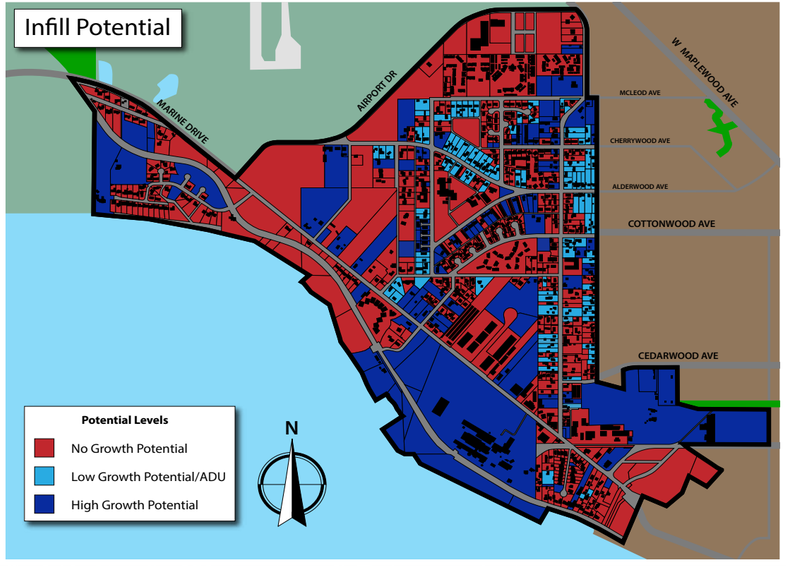
The City of Bellingham has identified the Alderwood Neighborhood portion of the urban growth area (UGA) as a high priority area for annexation. The Western Washington University (WWU) Planning Studio Class of 2017 examined ways to achieve Bellingham's land use policies and planning's social, environmental, and economic values through the master site planning process to promote sustainable urban community development for the Alderwood Neighborhood.

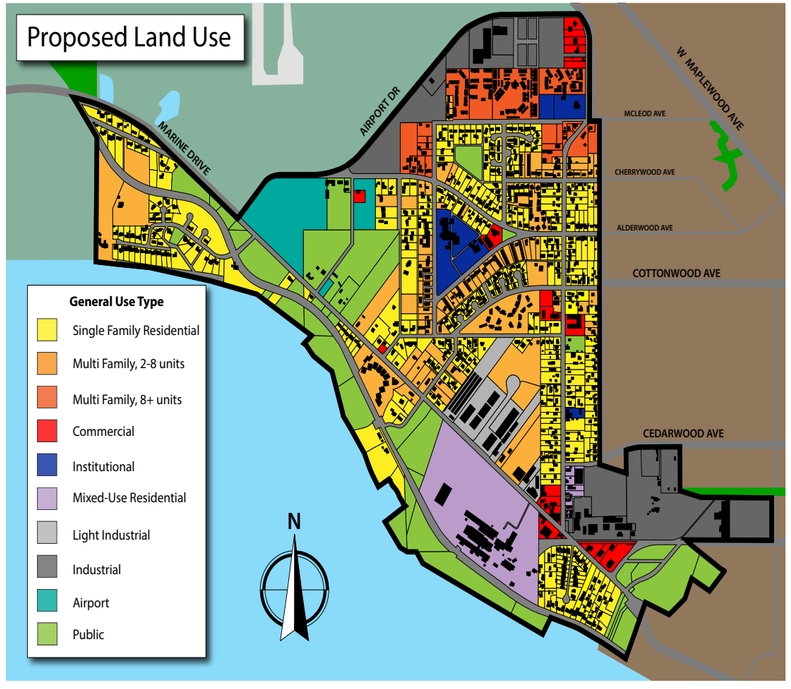
In this process, the next step was to conduct an infill capacity analysis and obtained feedback from residents in a community workshop that supported the development of a preliminary growth infill strategy. This strategy embodies an emphasis on neighborhood identity, diversity in land uses, and the efficient use of land. The challenge is to identify suitable mixed-use infill alternatives that promote neighborhood cohesion to create a more functional and livable neighborhood for the Alderwood community as it transitions into a Bellingham urban neighborhood.

This report provides maps of current and future land use, descriptions and results of the infill analysis, and a description of the Alderwood Neighborhood community workshop. The WWU Planning Studio analyzed infill capacity for the Alderwood Neighborhood through data analysis using the City of Bellingham's "City IQ" and collecting empirical data in the field. The master infill analysis map displays parcels that have the potential for growth.

A parcel that has high potential for growth is shown in dark blue, a parcel that shows low potential is shown in light blue, and a parcel that shows no growth potential is represented by red. Additionally, as part of the planning analysis, the planning studio sought to identify sub-areas within the neighborhood that could be potentially developed as neighborhood village centers or as urban villages. While some growth may occur throughout much of the neighborhood, concentrated growth is identified for areas that can serve as urban villages. Urban villages are promoted by the City of Bellingham because of accessibility to services and the suitability for higher densities located in a centuralized location within the urban village.

Land Use	Acres	Units
ADU	-	105
Multi-Family, 2-8	61.62	308
Multi-Family, 8+	15.41	231
Total	-	**644**





Proposed Future Land Use

Land Use	Acres	Units
ADU		105
Multifamily Low Density	61.62	308
Multifamily Higher Density	15.41	231
Total		644
Infill Potential		1353

One of the important features of urban villages is the location of efficient public transportation services that promote residents to walk to neighborhood centers to access other areas of the city by public transit. In general, concentrated growth in urban villages reduces private vehical dependancy while lowering costs for new roads and public infrastructure.

The Planning study methodology for projecting future land use began by evaluating whether a parcel was fully developed (referred to as “hard” sites) or underutilized and subject to further development or redevelopment (“soft” sites) by comparing the values of the land parcel to the associated improvement values. Soft and hard parcels are determined by comparing the assessed improvement value and dividing it by the assessed property value. If the ratio is above a 1 this indicates the property has sufficient investment in improvements to assume it will most likely remain in its current use. If, however, the property ratio is below 1, this may be an indication that the property is currently underutilized and may be a candidate for additional investments in new developments. Following the economic analysis of each parcel, a field survey was conducted to verify conditions on each parcel. Next, each team member surveyed the selected parcels. This provided an opportunity to become further familiar and to make a subjective observation of the parcels analyzed. After this field survey was completed, the field analysis notes were compiled to produce the master infill analysis map. This data is displayed as a recommendation for future zoning (proposed land use map) for the Alderwood Neighborhood.

6. Mobility Analysis

6.1 Transect Analysis

The transect analysis shows the current land uses in Alderwood as a study of the built environment of the neighborhood. Each zone contributes to the neighborhood’s social and economic organization and reflects the pattern of historic neighborhood development. Four main types of urban form are reflected in the map below using the transact analysis methodology, and include: rural land use (T1), suburban land use (T2), neighborhood commerical land use (T3) and general urban (T4).

T1(Purple): *Rural Reserve*
Low-density region along the coast of Bellingham Bay up to the boundary created by the railway between coastal area and suburban development. Locust Beach is one location included in this transect; this area of Alderwood is valued for scenic views and recreational activities and it is not preserved under any formal policy, but can be characterized by low levels of surrounding development. The railway line disrupts potential for transect preservation with daily train traffic.

T2 (Yellow): *Suburban*
Suburban development makes up most of the Alderwood Neighborhood transect with these areas depicted by Seaview Circle and inland Bennett Drive. The density in this area is modest but still has the highest density of the transect zones because single family home developments are characterized by more structures organized by neighborhood streets.

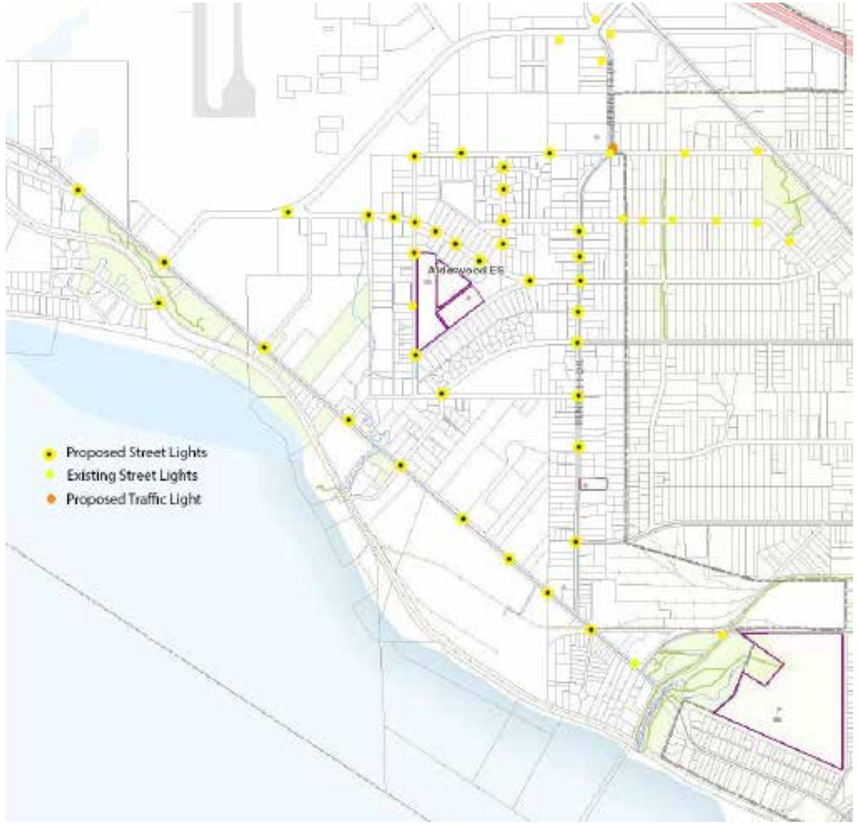
T3 (Red): *Neighborhood Commercial*
Neighborhood Commercial development surrounds Marine Drive with businesses including Coconut Grove, Drive Market, and Son’s Plus with neighborhood institutions such as Life Church. The parking accommodations of each business and facility lessens the structural density and walkability of the area by incorporating space for automobiles arriving via Marine Drive.

T4 (Green): *General Urban Zone*
The General Urban Zone includes Montgomery Hardwood Flooring as a light-industrial business use of the land along with commercial businesses such as Ershig’s. This area offside of Marine Drive signifies the existing urban area of Alderwood as it is bordered by a main arterial road as well as suburban development.

6.2 Connectivity Maps

Current and Proposed Safety Infrastructure

The map on this page shows existing street lights in the City of Bellingham and Whatcom County areas. The location marked by an orange dot indicates an identified problem intersection requiring a street light, in addition to crosswalks and improved street lighting. The COB Street Lighting Replacement Program should be implemented in Alderwood to provide well-lit residential streets which meet city sustainability and cost-efficient goals for street lighting infrastructure. Also pursuant to the City of Bellingham's Greenhouse Gas Inventory and Climate Protection Action Plan, halogen lights should be replaced with LED lighting systems. Not only do the new lights improve visibility, but has saved the city about $30,000 in 2005.

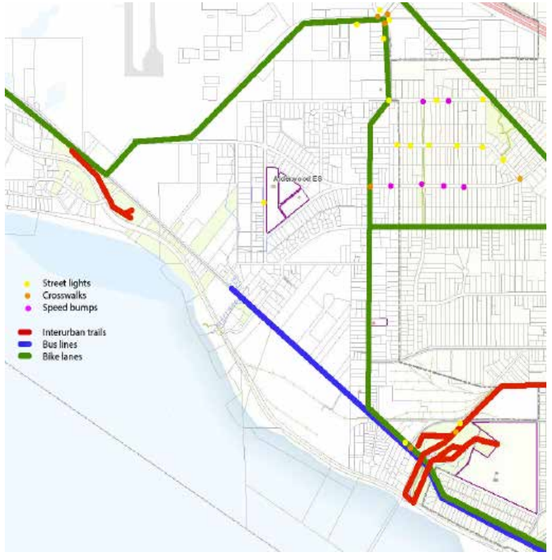


Current and Proposed Crosswalks and Sidewalks

Existing crosswalk (teal circle) and sidewalk (green line) locations are illustrated alongside proposed crosswalk (orange circle) and sidewalk (blue line) locations. Proposed crosswalk and sidewalk locations coincide with each other to complete street infrastructure along Bennett Drive, Marine Drive, and the streets surrounding Alderwood Elementary, including Hollywood Avenue.

Current Transportation Infrastructure

Existing transportation infrastructure in the Alderwood Neighborhood exists mostly around the perimeter of the neighborhood. Bus lines follow the arterials and collective roads such as Marine Drive and Bennett Avenue. The area has 16 streetlights, seven crosswalks, and six speed bumps, most of which are concentrated in the North-East section of the UGA. The uneven distribution of infrastructure to the area nearest to the city boundary line creates unsafe mobility situations for those living in the Alderwood Neighborhood.



Current and Proposed WTA Bus Routes

Whatcom Transit Authority (WTA) fixed routes for the Alderwood Neighborhood currently do not well service residential areas nor the Alderwood Elementary School. Current bus routes, as of March 19, 2017, serve the perimeter of residential areas. Residents and Alderwood Elementary School employees expressed a desire for Whatcom Transit Authority (WTA) bus service nearer to the school. With increased future infill development, and the potential addition of urban village sites, it is imperative to expand future bus services throughout the neighborhood.

Current and Proposed Bike Infrastructure

Existing bike lanes follow Marine Drive and end just beyond Alderwood Creek. The bike infrastructure serves as a connecting route between the City of Bellingham and Whatcom County area more than it can serve residents of the Alderwood Neighborhood. Bike lanes will be extended on Marine Drive to the Alderwood Neighborhood UGA boundary as well as throughout the perimeter of the Alderwood Neighborhood to match bus route infrastructure. The Bellingham Bicycle Master Plan calls for the addition of Bike Boulevards, Buffered Bike Lanes, Climbing Lanes, Shared Lanes, and Cycle Tracks. This provides safe routes for bike traffic where bikes have right of way over motorized vehicles. Bike Boulevards routes follow busier streets but do not act as an alternative route for motorized vehicles. Buffered Bike Lanes add a buffer space that adds safety for cyclists. Climbing Lanes protect cyclists going up hills because they move much slower, but have Shared Lanes going downhill. Shared Lanes are areas where cars and bikes have similar priority. Traffic in these areas is generally less than 25 MPH. Cycle Tracks are bike lanes set aside from the road so that there is no way for cars to cross into the bike lane. These are generally protected by curbs or greenery. This relates to Goal T-4 which is to reduce dependence on single-occupancy vehicles. Under Goal T-4 is Policy T-17 which encourages trips made by “walking, biking, public transit, etc”.

6.3 Infrastructure Visual Ideation

Sidewalks separated from the roadway are the preferred accommodation for pedestrians. Sidewalks provide a safe space for children and adults away from vehicles. Roadways without sidewalks are more than twice as likely to have a pedestrian crash than sites with sidewalks on both sides of the street.

Improved lighting from halogen to LED lights. Lighting improvements have been shown to significantly reduce crime in a cost-effective manner.

Covered bus stops provide protection from the elements while waiting for the bus. Providing an adequate bus system is part of Goal T-2 which is to "provide safe, well-connected, and sustainable mobility options for all users." Under this goal, Policy T-6 Design which is to have "multimodal transportation improvements on existing and new streets with the safety and mobility needs of all user groups considered and with priority emphasis placed on the most vulnerable user groups."

Stormwater management sidewalk space also pertains to Policy CD-2. Like buffered sidewalks, the city would like to "install physical buffers between the sidewalk and traffic such as... rain gardens or other low impact development techniques."

The Bellingham Bicycle Master Plan calls for the addition of Bike Boulevards, Buffered Bike Lanes, Climbing Lanes, Shared Lanes, and Cycle Tracks.

7.1 Introduction

7. Demographics and Housing Analysis

The City of Bellingham is comprised of approximately 83,000 residents and growing, currently with 36,760 housing units and a median gross rent of $902. The median income of Bellingham residents is $43,536, but with 23% of the population considered to be in poverty and 719 residents considered homeless (U.S. Census Bureau, 2016 Whatcom County Annual Report on Homelessness, 2). The demographic makeup of the City of Bellingham and the Alderwood Neighborhood is important to consider with the proposal of annexation of the Alderwood Neighborhood. The Alderwood Neighborhood is designated as an urban growth area (UGA) for the City of Bellingham. The city anticipates integrating this neighborhood into the City Limits as population continues to grow. With annexation comes the necessity of identifying housing requirements to ensure that diverse housing is provided to meet the interests of residents now and into the future. The City of Bellingham seeks to maintain the character and makeup of the Alderwood Neighborhood, which means ensuring that current residents are able to maintain residency and thrive while integrating into the city. The homeless population must be considered while make decisions for the City of Bellingham and Alderwood Neighborhood. This research demonstrates a need for affordable housing in the Alderwood Neighborhood as the residents contemplate their transition in the City. It details the demographic makeup of the Alderwood Neighborhood, current Bellingham housing policies, and the need for specific housing options.

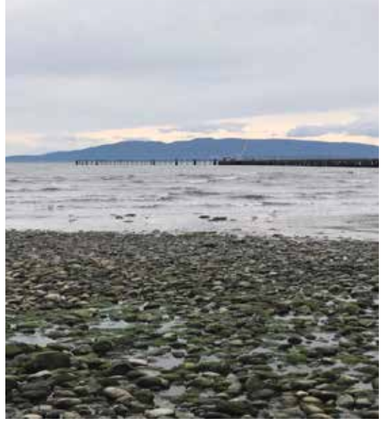
7.2 Methodology

In order to determine the demographics and housing inventory in the area, this planning study relied on the 2015 census data of the City of Bellingham and Marietta- Alderwood Neighborhood in comparison to the 2016 demographic UGA analysis of the Alderwood Neighborhood, taken from the Washington State Office of Financial Management. Once this information was acquired, this study established a population ratio between Marietta-Alderwood and specifically the Alderwood Neighborhood. This population ratio was used to analyze the projected demographic statistics for the Alderwood Neighborhood. To better address housing needs and housing recommendations, the demographic calculations provided the opportunity to make more precise evaluations of the neighborhood.

To determine the number of homeless individuals per acre in the Alderwood neighborhood, the approximate known homeless population is divded by the total acreage for the City of Bellingham. The number is then multiplied by the number of acres within the Alderwood Neighborhood to estimate a homeless population of about 20 persons. As the airport zone may also hold homeless populations, but cannot provide formal housing, the acreage of the airport area was included in the calculation for homeless accommodations needed. Alderwood Neighborhood is the most feasible place for siting homeless housing for people currently residing within the airport area. Acreage of both the Alderwood Neighborhood and the airport area were taken and multiplied by the number of homeless people per acre, arriving at approximately 30 people. These estimates are approximations and serve as a baseline for planning future housing in the Alderwood Neighborhood and should be considered when making housing decisions.

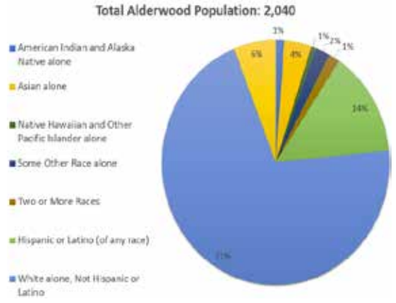
Alderwood Neighborhood Demographics

In the City of Bellingham, the most prominent demographic racial identification is White at about 85%, followed by 7% Hispanic or Latino, and 5.1% Asian. The rest of the racial makeup is comprised of two or more races: African American, American Indian, and Alaska Native. Additionally, as of 2015, 20% of residents in the City of Bellingham spent 50% of their income on housing. The population of homeless in the City of Bellingham is approximately 719 people, but continues to fluctuate. The homeless population in the Alderwood Neighborhood is estimated at about 21 people, 30 including the Airport Zone.



Conclusion

The demographic statistics and community testimonials demonstrate a clear need for increased affordable housing, regardless of annexation into the City of Bellingham. The City of Bellingham outlines goals for affordable and equitable housing for its residents. With annexation into the City of Bellingham, affordable housing goals are more attainable for Alderwood as a result of supportive public policies, regulations, and available resources to target the provision of affordable housing. There are a variety of options in affordable housing that would fit the vision and character of the neighborhood. This study first suggests the strategy of incorporating Accessory Dwelling Units (ADUs) due to the likelihood of producing the most affordable forms of housing, and the way that ADUs adhere to neighborhood character. The second suggested option for the Alderwood Neighborhood is to implement low income housing units based on a family's income. Lastly, the need for housing to aid in lowering chronic homelessness is a crucial aspect of affordable housing. The provision of affordable housing that is beyond the status quo in the Alderwood Neighborhood may become a leading model for the rest of the city.



Racial and Ethnic Demographics: Data collected from United States Census Data for Alderwood Urban Growth Area

Description	Measure (Alderwood UGA Addition including Airport)
2015 Population Estimate	2,280 ^
Median Age*	35.3
Educational Attainment: % high school graduate or higher*	90.00%
Total Housing Units*	1,189
Median Rent	$916
Total Renting Households	395
Households > 30% GRAPI	117
Households < 30% GRAPI	278
Median Household Income*	$41,720
Individuals Below Poverty Level	23.10%

^ Information gathered from both 2011-15 ACS data and COB UGA Data Spreadsheet
* Information provided and/or extrapolated from 2011-15 American Community Survey, Marietta-Alderwood CDP
GRAPI: Gross Rent as a Percentage of Income

Population, Income, and Housing: Data collected from United States Census Data for Alderwood Urban Growth Area

7.3 Need for Affordable Housing

For decades, the City of Bellingham has dealt with the pressures of affordable housing. Bellingham's definition of affordability is a "household that pays no more than 30% of its annual income on housing" (Bellingham Comprehensive Plan 2016). Families that pay more than 30% of their income for housing are considered "cost burdened". "Cost burdened" families tend to have difficulty affording necessities such as food, clothing, transportation and medical care. Housing and population statistics from 2015 shows approximately 20% of the population spent 50% or more of their monthly income on rent.

Currently, the Alderwood Neighborhood is comprised of approximately 2,100 residents with 23% estimated to be below the poverty line. The median family income is estimated at $41,000/year. The local elementary school, which is part of the Bellingham School District, provides 85% of the students with free or reduced lunch. The assisted lunch program is given to families based on their income rather than the amount of people within the household or their eligibility of food stamps.

In talks with many of the current residents of the Alderwood Neighborhood, one of the attractive pieces of the Neighborhood is that housing costs are much less than those within the Bellingham City limits. Many of the families currently residing in the neighborhood live on budgets so tight, that the smallest change in housing costs may push them to move farther away from Bellingham and further burdening them with additional costs associated with commuting, limited food, and services availability. The addition of more low-income units should be a priority in order to prevent gentrification from pushing long-time residents out of the area in the event of annexation and economic investment.

Homelessness is an issue that all cities must address. Calculations were used to determine the estimated number of homeless in the Alderwood Neighborhood. The results showed that approximately 20 people within Alderwood Neighborhood are homeless. According to a representative from Life Church, a religious facility in the area, much of the homeless population lives nearby at the concrete plant in tents without adequate access to facilities and services. The Alderwood Neighborhood has the potential to foster a program in conjunction with the City of Bellingham and other potential stakeholders to provide a transitional housing program within the neighborhood.

7.4 Affordable Housing Strategies

Community Land Trusts

Community Land Trusts (CLT) are non-profit companies that develop permanent affordable housing by controlling the price of the land. The owner owns the improvements upon the land, including the home and all additions to the home. CLTs provides affordable housing for lower income residents in the community and promotes resident ownership and control of housing. CLTs have long-term community benefits by increasing future affordability and prevents foreclosure in the community. One local community land trust is the Kulshan Land Trust. This non-profit company manages 119 homes and have collaborated with 166 more. They have been a part of the Bellingham community since 1999 and have made great strides to educating the public about the benefits of CLTs.

Accessory Dwelling Units

An Accessory Dwelling Unit (ADU) is an extra living unit on a property, complete with kitchen, bathroom, and sleeping facilities. Subject to local regulations, ADUs may be located inside, attached to, or detached from the primary home on the property. ADUs offer a way to house more people on an existing parcel of land and allow for affordable living.

Low Income Public Housing

Public housing was established to provide affordable and safe rental housing for eligible low-income families, the elderly, and persons with disabilities. Public housing comes in all sizes and types, from scattered single-family houses to high-rise apartments for elderly families. The Bellingham and Whatcom County Housing Authorities own and operate apartment complexes in the City of Bellingham and in the unincorporated county including the Alderwood Neighborhood. Public housing is maintained by the city or county and are typically near bus routes for easy access to transportation.

Special Needs Housing

- Senior Housing:
  Senior living gives access to the resources and accommodation needs for the elderly. Senior living comes in a number of forms including age-restricted communities, nursing homes, retirement communities, and retirement homes. It provides seniors adequate assistance, socializing, and/or amenities for people 55+ years old. These facilities tend to have a medical staff to assist with health problems and are usually along bus lines to allow easy access to transportation.

- Shelters:
  Shelter programs often provide affordable housing to homeless, mentally ill persons, and domestic abuse victims. Shelters have been working to prevent homelessness of mentally ill persons by assisting formerly homeless or mentally ill persons to transition to permanent subsidized housing or unsubsidized independent living. It provides the homeless or mentally ill a safe, temporary place to stay while assisting them to find long-term, affordable residence.

Mircohousing

- Small houses:

  Small houses are typically no larger than 500 square feet. Forms of small houses include tiny houses, cottages, or shipping containers that sit upon private or community land. Small homes are less expensive and more energy efficient than larger houses and they can be built on site or moved onto lots that cannot accommodate larger homes. Micro houses are small and customizable enough to allow the homeowners a sense of place.

- Tiny apartments:

  Tiny apartments allow for higher densities within urban areas. Tiny apartments are typically within the 100 to 200 square foot range. Tiny apartments offer an affordable alternative to expensive urban housing. These tiny apartments often contain a kitchen, a bathroom, and a living/bedroom area.

7.5 Affordable Housing

Recommendations for Alderwood Neighborhood

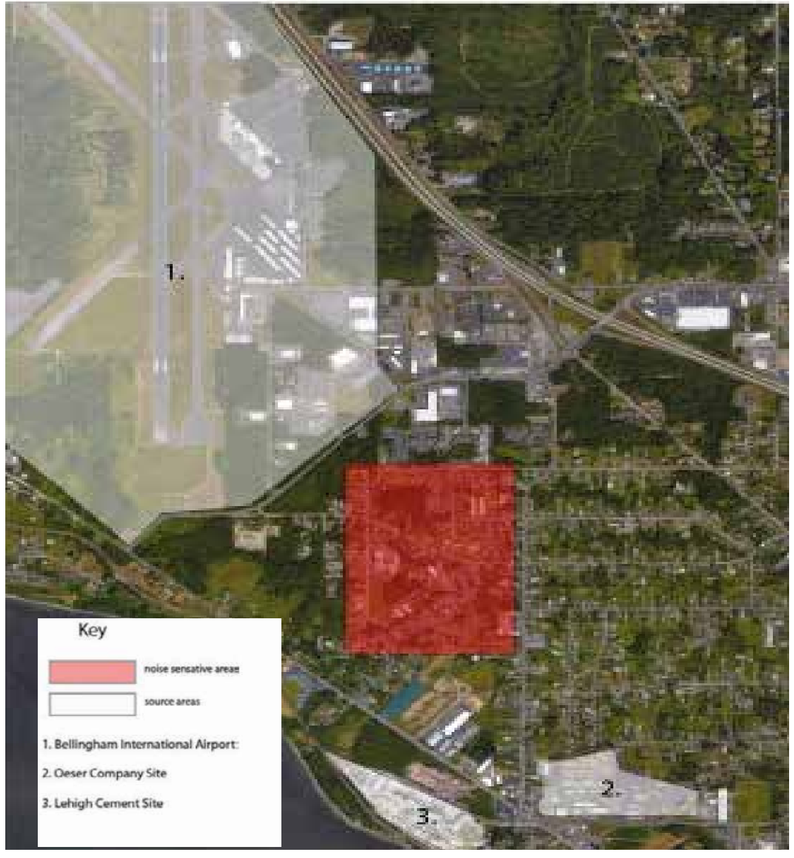
For the Alderwood Neighborhood, this study recommends several housing options. The first priority is to keep living costs low and maintain the character of the neighborhood. Currently, one of the most important options in affordable housing includes implementing an accessory dwelling unit (ADU) plan for existing and future property owners. A plan for implementing ADUs are important because of the existing single family land-use patterns.ADUs maintain the character of the neighborhood while increasing housing opportunities.

Additionally, the use of ADUs limits the amount of land acquisition, provides economic opportunity to property owners, and increases housing density at an affordable rate. The study further recommends an increase in low income housing units that base rent off of family income with an acceptable minimum and maximum income level. A large segment of the Alderwood Neighborhood currently pays over 30% of their income to rent. This study seeks to minimize costs of housing while increasing their opportunity for livable amenities such as healthcare, food and transportation. Lastly, particular considerations should be made for the homeless population in the area. A homeless shelter that can house approximately 30 people or a small housing community for severely low-income or chronically homeless individuals is recommended for the Alderwood Neighborhood.

8.1 Introduction

The Alderwood Neighborhood hosts three prominent industrial sites: The Bellingham International Airport, Lehigh Cement Plant, and the Oeser Company (utility pole manufacturing). These sites affect the area with noise, air, and water pollutants. The most notable of these pollutants is noise generated from the airport, which is heard across the area. The Lehigh Cement Plant has published a report on the impact of their plant on the environment, striving to be transparent to the community and city. The Oeser Company is identified as a Superfund Site by the Environmental Protection Agency (EPA), which has provided reports on the environmental impact of the site. This report will provide in depth information about the potential impacts to their environment.

8. Environmental Risks and Community Assets



8.2 Bellingham International Airport

Bellingham International Airport is located nearly three miles northwest of the City of Bellingham. The airport is located on a 1,080-acre parcel of land owned by the Port of Bellingham. The airport completed their first runway on June 1, 1940 (Port of Bellingham, 2015, p. 2.2). With the threat of war approaching, the expansion of the airport continued. Since then the airport has added to the length of the runway as well as construction of a parallel taxiway, aviation hangars, an air traffic control tower as well as a passenger terminal (Port of Bellingham, 2015, p. 2.7). According to the Port of Bellingham Comprehensive Plan, this airport is the quickest growing airport in Washington State in terms of commercial service (Port of Bellingham, 2015, p. 2.28). Increased development of the airport is encouraged through the Washington Growth Management Act. However, the areas surrounding the airport are incompatible for residential development, so the port is buying the land to zone the area as industrial, commercial, or open-park space. Overall, the most prominent environmental risks produced by the airport are noise, water, and air pollution.

Noise Pollution

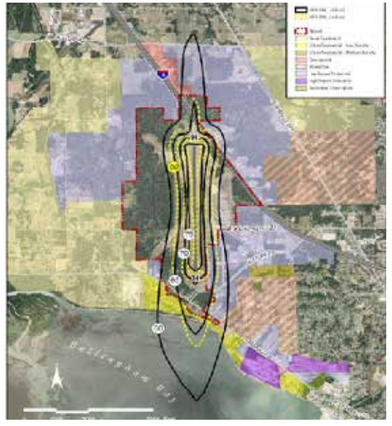
The principle impact that is created by the airport is noise generated from aircraft as well as fumes from the airplane fuel. In 1991, the Port of Bellingham completed a Federal Aviation Regulations (FAR) Part 150 Noise Compatibility Program (Port of Bellingham, 2015, p. 6.12). The program places limitations on the airport in order for the surrounding areas to receive the least amount of noise impact. This program resulted in noise abatement efforts, which affects the area directly southeast of the airport, including the Alderwood Neighborhood and Alderwood Elementary School. As shown in the map below, residences located in the surrounding area are susceptible to noise pollution from aircraft. The airport has certain procedures in place that aircraft must follow in order to minimize noise impacts to adjacent residents. The map illustrates the paths that aircraft can take-off and depart from, while directly east of the airport is restricted. The aircraft paths are not located above the school or in the Alderwood Neighborhood. The Port of Bellingham has been buying land that is surrounding the airport in order to deter residential growth in noise-affected areas as well as to open up the area for industrial, commercial, and open-space use (Port of Bellingham, 2015, pp. 6.12-6.15).

Air Pollution

The use of aircrafts and other airport services produce air pollutants, such as ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, particulate matter, or lead (Port of Bellingham, 2015). However, according to the Environmental Protection Agency, these pollutants do not have any serious impacts. In accordance with the Airport Master Plan, the port will continuously review potential impacts.

Wetlands

In 2010, the U.S. Army Corps of Engineers authorized the port to fill certain wetlands for development. The filled wetlands are designated as development areas for airport operations and airport related commercial services. Wetlands provide a natural filtration service for water runoff generated from the airport. In addition to filtering runoff, wetlands provide a critical habitat for numerous plant and animal species. The removal of wetlands on airport property decreases available habitat for animals, while increasing potential for toxic runoff to affect the area.



8.3 Lehigh Cement Plant

The Lehigh Cement Plant opened in 1913 and is continuing as a depot/terminal to this day. The plant is owned by a Canadian cement company that uses the Bellingham site as a transportation depot for the rest of the state. This plant is involved in the production of cement using clinker and gypsum. Clinker is a mixture of limestone, shale, silica and iron, which makes up 94 percent by weight of the dry components of cement (Lehigh Northwest Cement Company, 2006, p. 6). Water-use and point source contamination are the main environmental concerns as shown in the Cement Site on the left. The water after use is transported across the site before settling into large containment tanks, eventually being drained off site.

Water-Use & Contamination Risks

The water used to wash the trucks, cool parts used in the production process, and storm water are gathered into two different drainage ponds. According to the Plant Fact Sheet, during times of full production the amount of noncontact water varies from 80,000 to 130,000 gallons per day. This water is transported between the two drainage ponds before finally reaching the outfall pipe, which drains into the bay (Lehigh Northwest Cement Company, 2006, p. 7).

Pond 2 is roughly 25 feet by 15 feet and contains numerous wetland plants and wildlife. The surface of the pond is lined with a 16-foot-thick clay layer in order to prevent infiltration. It is noted that there is no engineered plastic or concrete liner present. Washington State, through the Clean Water Act, has a certain standard of water quality that sets a maximum level of pollutants allowed in state waters (Washington State Department of Ecology, 2011). The Lehigh Cement Plant was reviewed by the Department of Ecology who were unable to determine if the drainage water complies with applicable permit standards.

1. Oil Storage Building
2. First Settling Pond
3. Outfall
4. Storm and Cooling Water Flow (white line showing direction)

8.4 Oeser Company

The Oeser Company creates and manufactures utility poles using lumber from the Pacific Northwest and parts of Canada. The Environmental Protection Agency (EPA) designated the site as a Superfund Site, meaning that the area is toxic enough to need large amounts of funding for cleanup (U.S. Environmental Protection Agency Region 10, 2003). The EPA identifies the main risks in two categories: human and ecological risks. Both categories of risks at the site are due to what the EPA calls “chemicals of potential concern” (COPCs). Therefore, the EPA has allocated funding towards soil and groundwater cleanup in order to reduce the level of contaminants in this area.

Chemical Risks

The EPA reported that, “wood-treating wastes, including PAHs (most of the compounds that make up creosote), PCP and dioxins/furans (contaminants found in PCP treating solutions), were the primary contaminants identified in surface and subsurface soil, groundwater, air, surface water, and sediment” (U.S. Environmental Protection Agency Region 10, 2003, p. 22). Employees at Oeser Company only use a 5% PCP solution to protect the utility poles against weathering, fungus, and insects (The Oeser Company, n.d.). The substance can enter humans and animals via air, food, water, or even contaminated soil.

According to the toxicology profile, children are at a higher risk compared to adults. Furthermore, pentachlorophenol can also lead to a suppressed immune system. The toxicology report stated that the physical and chemical properties of pentachlorophenol limit the ability of the substance to evaporate into the atmosphere (Agency for Toxic Substances & Disease Registry, n.d.). PCPs are just one of the chemicals of concern, but all of the chemicals that the EPA identified as a risk are in the process of clean & Disease Registry, n.d.). PCPs are just one of the chemicals of concern, but all of the chemicals that the EPA identified as a risk are in the process of cleaning it up with the EPA’s help.

Mitigation Efforts

A point source of contamination could be runoff from the excess material. However, the site does have containment areas designated for excavation if contamination levels exceed a certain level. The company rerouted a creek running through the property in order to prevent contamination via groundwater or surface water. As of the most recent five-year review, the site has all contamination under control, including exposures to humans.

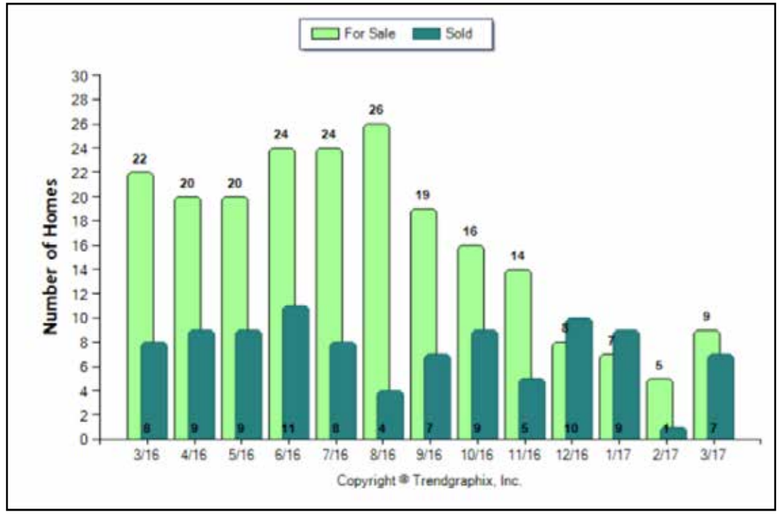
Part II: Plan Recommendations and Implementation Strategies

9. Market Absorption and Phasing

9.1 Introduction

In 2015, Bellingham's estimated population was 83,580 people. Over the next 20 years, Bellingham's population is expected to grow to 121,505 people. The population growth of 37,925 people is the population forecast adopted by Bellingham's City Council in September, 2016 (see Figure 1 Growth Projection Table). To meet the housing needs for the projected population growth, an estimated 18,060 additional residential units are projected to be added to the housing stock[i]. Housing units support 2.4 people per unit. The housing types consist of single family homes, cottages, town homes, duplexes, triplexes, condominiums, and apartments. Conducting a land capacity analysis, Bellingham has determined that the additional housing units can be accommodated within the city's existing boundaries, in designated urban villages, as well as in urban growth areas (UGAs) surrounding its municipal boundaries.

In 2016, Bellingham issued 501 permits that created 532 new units. 532 units is short of the 790 units needed per year for Bellingham's growth projections. Figure 2 reflects the number of permits Bellingham issued for 2016. The 258 housing units that were not filled in 2016 can be made up in 2017 or they can be added to the cumulative housing units needed throughout the next 20 years. Bellingham's growth rate will vary from year-to-year based on economy, housing availability and costs, and other factors.
Being short 258 housing units can impact housing availability and the market absorption rate (MAR), between March 2016 and March 2017 reflects a shift in new homes for sale[iii] (see Figure 3 for a breakdown by month). The MAR indicates the number of homes for sale compared to number of homes sold in that month and it will show how many days it will take a home to sell per month. Figure 4 displays the MAR for new construction in Bellingham between March 2016 and March 2017. When the housing stock falls, home owners benefit due to supply and demand, but people searching for new homes will find it harder to find homes in their price range. Bellingham's median price for a single family home climbed from $310,000 in March 2016 to $425,100 in March 2017, an increase of 37.1%. Fig. 3 This Graph reflects the number of homes for sale and the number of homes sold for each month between March 2016 to March 2017 (Keller Williams, 2017).



2016 Permits Issued	# of permits	# of units
New Single Dwelling	191	194
New Two Dwelling	10	20
New Multi-Family	12	232
Residential Alt/Add &ADU	263	6[ii]
New Mixed Use	3	80
New Commercial	22	0
Total	501	532

9.2 Alderwood Neighborhood Growth Opportunities

Increasing the efficiency of Bellingham's land use through increased density with reliance on existing services, rather than new services, will help accommodate future growth projections. This strategic planning approach is referred to as "infill development" and is a principal strategy employed in Bellingham's growth management strategy. Increasing density and the addition of mixed land uses promotes more opportunities for affordable housing by efficiently placing people nearer to services and jobs. Western Washington University's (WWU) Planning Studio conducted an infill analysis of the Alderwood Neighborhood by determining how existing properties could be used more efficiently. Some properties were found suitable to support an accessory dwelling unit, while other properties showed the potential for up zoning from single family use to multifamily use. In addition to increasing land use intensity through up zoning, other properties were found suitable for a change in land use from underutilized industrial uses to mixed land uses in urban village arrangement that could provide additional neighborhood services located close to residential areas. The Planning Studio's infill analysis determined 894 new units could be potentially added to the Alderwood Neighborhood, providing new housing for 2,145 people. This equates to 5.67% of the total projected population growth in the city over the next 20 years. Depending on market trends and growth prediction accuracy, the Alderwood Neighborhood (without consideration of urban village development) can absorb 107 people per year over the next 20 years.

Growth Projection	By Year	Five Years	After 20 years
New Residents	1,896	9,480	37,925
Housing Units Needed	790	3,950	15,803

9.3 Alderwood Neighborhood Urban Villages

In addition to conducting an infill analysis, this study identified the potential development of four urban villages within the Alderwood Neighborhood. Urban villages provide additional housing units that consist of single family residences, townhouses, condominiums, and apartments. Urban Villages also promote walkability by incorporating mixed uses, providing job opportunities, as well as additional services. Figure 5 conveys the number of potential units the neighborhood could provide in each of the proposed four urban villages, the number of people these units could support, and a percentage of the 20-year population forecast that each urban village can absorb.

The infill analysis and urban village scenarios represent the infill capacity potential that Bellingham should consider in addressing its future population growth. These options can be incorporated in phases that extend to more than 20 years into the future. By adding all the infill capacity for the Alderwood Neighborhood and the four proposed Urban Villages, this UGA area has the potential for absorbing about 22.00% of the projected 20-year population growth for Bellingham.

Growth Areas	Units	People	Absorption %
Alderwood UGA	894	2,145	5.65%
Urban Village 1	250	600	1.58%
Urban Village 2	217	520	1.37%
Urban Village 3	742	1,780	4.69%
Urban Village 4	1,375	3,300	8.70%
Totals	3,478	8,345	22.00%

9.4 Alderwood Neighborhood Infill Phasing

The neighborhood plan is proposed to be implemented in four phases over the course of 20 years. In each phase of the development, accessory dwelling units (ADUs), light multi family, and multi family housing are recommended for development to meet future housing demand for the Alderwood Neighborhood. It was estimated the Alderwood Neighborhood could accommodate approximately 894 additional units, broken down into 105 ADUs, 588 light multi family units (townhomes, garden court housing, shared court housing) , and 231 heavy multi family units (mixed use, apartment buildings). The following figure breaks down the phasing for each housing type over the next 20 years.

Development Type	Phase 1	Phase 2	Phase 3	Phase 4
Accessory Dwelling Unit	25	25	25	25
Light Multi Family	150	150	150	150
Multi-Family	60	60	60	60

10. Alderwood Urban Village Design Guidelines

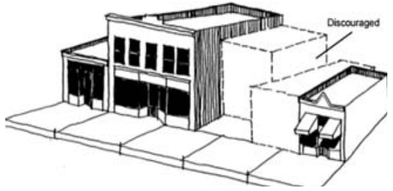
10.1 Introduction

As a community undergoes development, whether it is on an individual scale or a larger scale, it is important to have design guidelines in place that projects can adhere to so that they are compatible with Bellingham's neighborhood character. Design standards are written to provide a foundation for future development. And as stated in the City Center Design Standards for Bellingham, they also "serve as an educational and planning tool for property owners and design professionals, to increase awareness of what constitutes good design and assist the applicant in achieving these designs." In addition, design standards aim to elevate the living environment and design characteristics of urban villages, encourage creativity in site planning and architecture, as well as promoting respect for existing development, which come together to help protect the investment of current property owners.

Basic Principles of Design in Urban Villages

- Commercial Mixed-Use: Urban villages characterize commercial mixed-use as a mix of residential, commercial, offices, recreation and public uses. As the Bellingham Waterfront Development plan encourages, uses that support eating, drinking, entertainment, retail, and service establishments are encouraged at ground level.

- Encourage Pedestrian-Oriented Design: The streets in urban villages should be designed to be shared by cars, bicyclists, and pedestrians, thereby making the street interesting, inviting, and navigable through different means.



Setbacks

For commercial zoned areas in urban villages, building fronts are encouraged to be congruent to the sidewalk. Having minimal setback lengths creates a unified commercial block that enhances the aesthetics of the stores. An example of poor construction techniques are shown in the illustration above. The setback of the commercial building creates underutilized space that distracts from the rest of the commercial fronts. Maximum setback allowed for commercial buildings is 1 foot. However, the ideal setback length is 0 feet. For residential zoned areas, the table directly below contains the minimum setbacks from the street for the main building and garage or carports located on the lot.

Type of Construction	Minimum setback for main building (ft.)
Single Family Residential (1,800 ft. - 5,000 ft.)	10
Cottage Housing	15
Carriage Housing	15
Detached ADUs	10
Duplex/Triplex	5
Shared Court	10
Garden Court	15
Townhouse	5
Tiny Houses	5

Floor Area Ratio (FAR)

For commercial zoned areas, a base FAR value should be no less than 1 with a maximum value of 4 to be permitted. For new construction in the Alderwood neighborhood, the maximum amount of stories is limited to four. Structure setbacks are to be measured from the lot line.

For mixed-use residential zoned areas, the minimum FAR value should also be no less than 1 with a maximum of 3. If the development satisfies affordable housing guidelines and policies outlined by the city of Bellingham, then 1 additional story may be granted, bringing the FAR to 4.

For residential zoned areas, the table below contains the desired maximum FAR value per type of building construction.

Type of Construction	Maximum FAR value	Maximum Height (ft.)	Maximum floor area (sq. ft.)
Tiny Houses	0.5	25	500
Single Family Residential (1,800 ft. - 3,000 ft.)	0.4	25	800
Cottage Housing	0.4	25	600
Carriage Housing	0.5	25	500
Detached ADUs	0.5	25	500
Duplex/Triplex	0.5	25	750
Multi-Family Residential	0.5	25	1,000
Townhouse	0.75	25	500

Mass, Scale, and Form

Elements of the design, proportion, scale, and massing should emphasize human scale development. Larger structures should be visually divided so no linear massing dimension exceeds 25 feet. Larger structures can use vertical articulation design methods to simulate a series of smaller-scale buildings. Buildings should incorporate Leadership for Energy and Environment Design (LEED) standards meeting the silver category. The design of the open space should maximize functional use for leisure and recreation. The open space areas should provide solar access and privacy to properties.

Architectural Character and Articulation

Buildings should employ design techniques that make the storefronts feel more inviting: flat-faced, blank walls exceeding 10 feet should be prohibited. Articulation through variating setbacks can create a more interesting and inviting environment. For example, townhouses should have variated setbacks of about 4 feet between structures to create a more interesting and heterogenousheterogeneous design. Commercial buildings should generally have zero setback from property lines, but some commercial buildings may have some articulation of up to a 1 foot setback where sensible. Retail storefront should be dominated by windows to maximize pedestrian experience and relationship to retail stores. In no event should commercial retail buildings contain more than 5 linear feet of blank wall surfaces abutting sidewalks.

Pedestrian Amenities

The Alderwood Urban Villages should include pedestrian amenities that provide opportunities for recreation and social interaction. These amenities should include:

- Well-lit areas, greenery and landscaping, outdoor seating, pedestrian scale signs, art work, awnings, and large windows in commercial
- Retail signs should be attached to the face of buildings not to exceed 2 feet in height. Signs mounted perpendicular to a building's face should not exceed 4 square feet in size.
- Commercial buildings should encourage cover from the weather with awnings or other weather-protective building design for the public.
- Developers are encouraged to incorporate other opportunities in the design of buildings and to provide outdoor spaces oriented to pedestrians.

Windows

Windows on the first floor of commercial and mixed use buildings should be large in order to fit the pedestrian-oriented character of the urban village. Windows should rise 2.5 feet above ground level to provide architectural consistency. Residential windows on the first floor should match the style of the neighborhood and the housing type, as further defined in the City of Bellingham Infill Toolkit.

Mechanical Equipment and Service Utilities

All mechanical equipment and service utilities, including but not limited to HVAC equipment, electrical boxes, and public or private disposal bins, should be made as safe and aesthetically pleasing as possible. For example, disposal bins should be kept clean and have a pleasant design, and large electrical boxes should be hidden by a cover or by vegetative screening for safety and aesthetic appeal for safety and to improve the view.

Signs

Signage should be designed at the human scale, meaning that signs should be oriented for the line of sight of pedestrians. Design standards to meet this guideline may include keeping signage on the first floor of commercial and mixed use buildings and restricting the size of signs just large enough for pedestrians to read from a distance of 200 feet. If the building is designed as a landmark for the urban village, the sign could be larger, subject to approval of the Planning Director or a design review committee. Billboards or other unsightly signs should be prohibited in the Alderwood urban villages.

Crime Prevention through Environmental Design

The overall design of the urban village should employ design standards to encourage the "eyes on the street" as an effective form of crime prevention. Crime prevention design emphasizes how criminal activity can be deterred where the risk of getting caught is high. The urban village should utilize design techniques such as natural surveillance, controlled point-of-access, and clear territorial boundaries, as follows:

1. Natural surveillance means maximizing the visibility of the urban village. This provides increased opportunities for social interaction among the people in the urban village, which provides a natural form of surveillance by the public. Some design techniques that public facilitate surveillance include:

- Placing windows towards sidewalks and parking lots to increase visibility.
- Using ample lighting throughout the village, such as along pedestrian trails, stairs, ATMs, or bus stops.
- Implementing streets that are oriented towards pedestrians and bikes to increase sight at the human scale.
- Encouraging people to socialize and gather through public amenities such as outdoor seating to attract people.

2. Controlled point-of-access is defined as limiting the entry and exit points to an area to make escape more difficult for culprits, such as by:

- Creating a single point of entrance to a building or area.
- Using thorny plants near fences and near windows to discourage intruders.

3. Clear territorial boundaries mean defining the boundaries between public and private properties. This creates a sense of ownership for the properties, which makes intruders more likely to be seen as "out of place." This may include design techniques such as:

- Posting signs to alert people that the area has security systems in place.
- Placing motion sensor lights for private property.
- Implementing streets that are oriented towards pedestrians and bikes to increase sight at the human scale.
- Encouraging people to socialize and gather through public amenities such as outdoor seating to attract people.

Open Space

The incorporation of open spaces into the Alderwood Urban Village Design Guidelines seeks to enhance the safety, health, and social opportunities among people living there by:

1. Connecting people between the elementary school, parks, homes, activity areas, and the waterfront through a coordinated system of trails and open space.

2. Preserving the beauty of the natural habitat.

3. Creating clear definitions of space to visually buffer between different uses.

4. Optimizing the amount of sunlight to the open spaces by locating them away from the areas that are shaded for most of the day.

5. Considering the natural topography and natural water features by incorporating them into site and building design wherever possible.

6. Increasing the amount of permeable surfaces found throughout the neighborhood, which provides natural surface water treatment, increases groundwater recharge, and reduces the amount of storm water utility management required to manage urban runoff.

Terraces, Patios, Decks, and Balconies

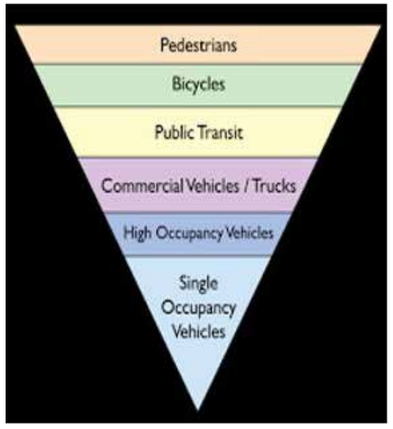
All buildings should include viewpoints and sitting areas, such as terraces, patios, decks, and balconies, to increase the village's usable open spaces. The viewpoints and sitting areas should orient themselves towards the waterfront and other natural amenities to take advantage of the views. Developers are encouraged to use roofs as places of open space, whether on top of commercial or residential buildings.

Transportation

Transportation in the urban village should emphasize multimodal principles with orientation towards pedestrians, bicycles, and public transit. Networks of transportation should not be oriented solely to accommodate the automobile. The Alderwood Urban Village should emphasize a strong pedestrian and bike network. This includes well-kept trail systems, either paved or as part of the natural landscape. The networks should provide both recreational and functionality by connecting residential, commercial, and educational areas.

Parking

For commercial and residential parking areas, site design should minimize the visual impact by placing parking away from the public right of ways. Where possible, site design should utilize the topography of the site to help conceal parking areas. Artwork should also be incorporated into the design of parking areas where appropriate. Parking units should be clustered and located away from the street and buffered by dense landscape screening.



11. Neighborhood Park Plan

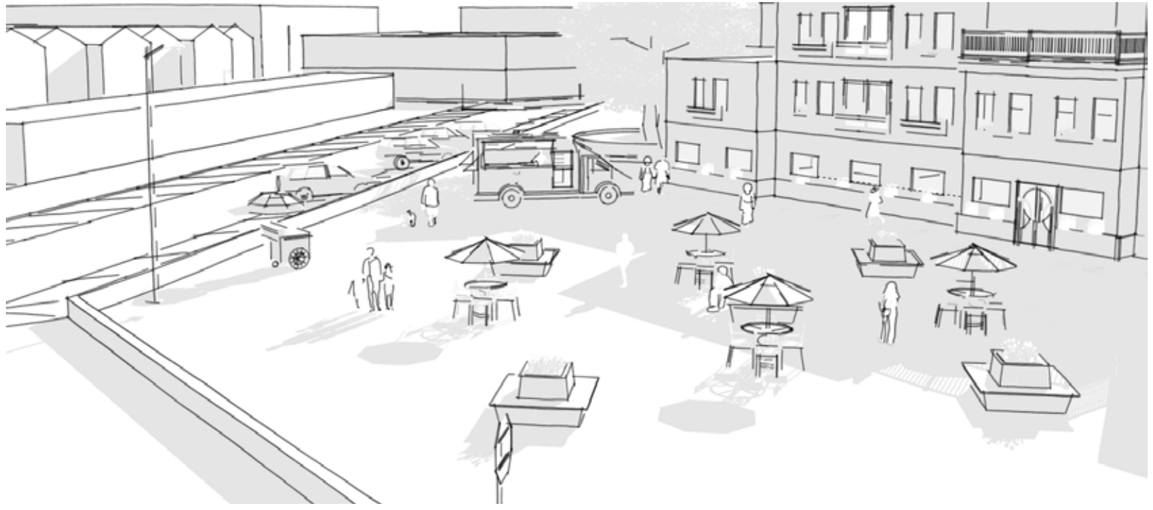
11.1 Proposed Parks and Trail Improvement

The Alderwood neighborhood has great potential for implementing a comprehensive park system plan. Currently the residents do not have access to any parks or trails in their neighborhood. Having areas of recreation and trails is necessary for communities to build ties and promote accessibility. The plan for the Alderwood neighborhood is centered on taking open space land owned by the city and turning them into parks with recreation activities like sport fields or playground. There are two target areas for this, one being on the beach and one being directly above the elementary school. A trails system would connect all parks, from the proposed open spaces down south near the pier. Another area of the park plan is to inquire about giving citizens access to the pier, which would provide recreation options and give people a reason to use the trail system. The Alderwood neighborhood has a lot of potential for implementing a comprehensive and accessible park system.

11.2 Park System Costs

Items	Material/Description	Useful Life	Unit Price	Estimated Cost
Paved Trails	Generally 10ft Wide			
Asphalt Overlay	1" overlay of asphalt	20 Years	$1 Sq. ft	$15,000
Concrete	Removal and Replacement	50 Years	$7 Sq. ft	$105,000
Doggie Stations	Waste disposal w/bags	15 Years	$1,200 ea	$6,000
Benches	Recycled plastic	15 Years	$1,200 ea	$12,000
Barrier Posts	6" x 6" pressure treated posts	15 Years	$12 LF	$4,000
Bike Lockers	Metal Lockers, 2 bikes per lock	10 Years	$350 ea	$5,250
Trash Cans	Metal Container w/ concrete base	15 Years	$500 ea	$5,000
Playground equipment	Play structure w/ slides, swing ect...	20 Years	$50,000 ea	$100,000
Landscape design	level topography suitable for recreation	5 Years	$13,160 p/yr	$65,800

Phase #	Cost Estimate
1- Establish trail system and prepare open space for park construction. Evaluate Topography	$145,000
2- Finish construction of playgrounds on Alderwood and Cottonwood Open Space	$50,000
3- Implement topographical changes. Maintain current park infrastructure.	$100,000
4- Fully implement parks and trails into the Bellingham Parks and Recreation System	$23,500



12. Affordable Housing Strategies

12.1 Introduction

The City of Bellingham, like many other communities in the Puget Sound region, is experiencing increased development pressures amid a highly productive housing and rental market and limits on the expansion of the Urban Growth Area, among other issues. For residents of the City of Bellingham and the Alderwood Neighborhood, affordable housing opportunities are few and far between, with approximately 70 percent of renters spending over 30 percent of their income on rent alone. One of the goals set for the Alderwood Neighborhood targets the accommodation of affordable housing options for varying income levels within the neighborhood.

12.2 Defining Affordability

What is Considered Affordable Housing?
There are multiple metrics used to define affordability: Gross Rent as a Percentage of Income (GRAPI) and Selected Monthly Owner Costs as a Percentage of Income (SMOCAPI). The metric to determine affordable housing, under GRAPI or SMOCAPI, is when 30% or less of household income is being spent on housing. In the Bellingham Municipal Code (BMC), the metric for affordability is less than or equal to 38% SMOCAPI, with 30% dedicated to a mortgage or rent payment (BMC 20.27.020).

Eligibility for Affordable Housing Access
As defined in BMC 20.27.020, the Alderwood Neighborhood should follow the definition of affordability which states that affordable housing should be set aside for households making 80% or less of the median household income for the city. Using 2015 estimates provided by the United States Census Bureau American Community Survey 2011-15 Estimates, the maximum household income for affordable housing assistance eligibility is $34,829 for the City of Bellingham.

12.3 Strategies for Provision of Affordable Housing

Once the Alderwood Neighborhood is annexed into the City of Bellingham, the city could partner with local nonprofits and private developers to generate more affordable housing. By providing private developers with incentives, such as density bonuses and tax breaks, the city encourages the construction of affordable housing. Otherwise affordable housing tends to be less desirable for developers.

Funding/Incentivizing Affordable Housing

Bellingham Housing Levy

The Bellingham Housing Levy is a program funded by taxpayers to help facilitate the building of housing for low-income (less than 80% median Income) and very-low-income (at or below 50% median income) households. Funds can be used to build rental or owner-occupied units, as long as the costs of rent or mortgage and utilities meet the aforementioned requirements. Requirements are also placed on location of projects using Housing Levy funds. For example, properties must be located within a ¼ mile walk to a WTA bus stop, with more funds prioritized to properties along bus routes with 15-30 minute headways. Plus, all newly built housing must meet the Washington State Evergreen Sustainable Standards.

Impact Fee Waivers

Per Ordinance 2015-07-029, affordable housing construction projects are eligible to have park, transportation and school impact fees waived or reduced, as well as up to 80% of utility connection fees. These incentives are approved on a case-by-case basis.

Building Permit Fee Reductions or Waivers

The City of Bellingham could reduce or eliminate permit fees for qualified affordable housing developments, in addition to speeding along the permitting process. Permit fees include plan review fees, building permit fees, mechanical, electrical, and plumbing fees, building code fees, and public works/stormwater fees.

Urban Village Affordable Housing Incentives

While urban villages incorporate financial incentive options to developers, other incentives could include cost-saving measures such as reduced parking, for a maximum of 30%. Waivers for parking are given only to projects where other modes of transportation are easily available and accessible to tenants/owners, such as public transit and bike/car-sharing programs.

Assistance Programs - Owner-Occupied Units

Kulshan Community Land Trust

Kulshan Community Land Trust is a non-governmental organization that works with middle-income households (less than 80% but more than 50% median income households) to find and maintain a stock of affordable housing within the City and throughout Whatcom County. Through the provision of grants and other available assistance the City of Bellingham and the US Department of Housing and Urban Development, families are able to afford housing within the communities that they work and live in.

The community land trust model ensures that housing that enters the land trust is kept affordable in perpetuity. To participate, potential clients must make at least $,2500 per month, be eligible for a mortgage, be able to put at least $2,500 down, and must participate in a financial literacy program before the Trust assists in finding a house. Owners agree to sell their house at an affordable price, while also being provided a chance to gain a return on investment for upgrades done to the property under their ownership. In addition to their mortgage payment, Trust property owners pay a small monthly ground lease fee to maintain essential operations and funding for future families to receive grants.

Habitat for Humanity of Whatcom County

Habitat for Humanity of Whatcom County is another non-governmental organization that specializes in subsidizing housing for people seeking homeownership in the area. In addition to building new housing, Habitat also operates programs for home rehabilitation. Habitat seeks to assist families who make within 30 to 60 percent of the median household income, while also guiding those who do not qualify to the appropriate services.

Habitat's model works differently from other programs, in that Habitat is mostly self-sufficient. While grant funding and donations are used to acquire land and materials, potential clients of Habitat pay for their homes in sweat equity and directly to Habitat through their in-house mortgage program. Most mortgage payments for Habitat homes range between $350-$500 per month and go towards operations and funding future homes. Potential clients are also asked to participate in the building of their home, totalling 500 hours of work.

Property Tax Relief or Exemption for Single-Family Homeowners

Homeowners looking to improve their home (ex. remodeling) are eligible for a 3-year property tax exemption on those improvements. By offering improvement tax exemptions, Bellingham would incentivize homeowners in the Alderwood Neighborhood to add ADUs to their existing property. Homeowners 61-years or older the year of filing who have a household combined disposable income of $35,000 or less the prior year are eligible for the Property Tax Exemption Program. Amount of tax relief is contingent upon combined household income.

Disabled homeowners are also eligible, with no age requirement attached. Additionally, senior and disabled homeowners are eligible for the Senior/Disabled Tax & Special Assessment Deferral, which postpones property tax and special assessment (i.e. local improvements that directly benefit a property) payments.

Property Tax Relief for Urban-Areas Multi-family Improvements

The City of Bellingham could designate certain multi-family developments in the Alderwood Neighborhood as partially exempt from certain property tax as it has in other areas of the City to encourage improvements to existing affordable multifamily housing developments. Encouraging improvements to existing affordable housing will help address issues of substandard housing, improving the safety and wellbeing of residents.

Assistance Programs and Partnerships - Rental Units

Catholic Community Services & Catholic Housing Services

Catholic Community Services (CCS) and Catholic Housing Services (CHS) are organizations dedicated to providing services and housing to the most vulnerable men, women, and children of Western Washington. CCS and CHS source public and local funding to develop permanent subsidized housing with supportive social services for low-income, homeless, special needs, and senior individuals and families.

Currently, CCS and CHS have several affordable housing sites in Whatcom County, and could potentially site another project in the Alderwood Neighborhood. Existing sites in Whatcom County include: Francis Place, the Mount Baker Apartments, Kateri Court, and the Washington Grocery Building. With the exception of Francis Place (housing reserved for the formerly homeless), the existing units require residents to earn at or below 50% of the area median income. For example, if the average median household income is $42,440, households must earn below $21,220.

Opportunity Council

The Opportunity Council is a private non-profit that provides a variety of community services, which includes housing support for homeless individuals and families. Qualified individuals may receive permanent housing, rental assistance, or eviction prevention through the Whatcom Homeless Service Center. Additionally, the Opportunity Council provides home repair assistance to low-income households to improve the safety of their home in regards to air quality, lead, and insulation. Currently, the Opportunity Council provides two head start (preschool) programs for the Alderwood Elementary.

Mercy Housing Northwest

Mercy Housing is a national non-profit specializing in affordable housing for low-income individuals and families, seniors, and individuals with special needs. Currently, their Northwest chapter is in the construction phase of an 80-unit affordable senior housing development in downtown Bellingham, called Eleanor Apartments. Additionally, they have a 50-unit apartment complex for agricultural workers and their families, called Sterling Meadows. Mercy Housing Northwest could potentially develop affordable housing for low-income individuals and families in the Alderwood Neighborhood if partnered with a national or local donor.

Lydia Place

Lydia Place is a non-profit organization committed to providing low income housing. Lydia Place operates in Whatcom County by connecting low income individuals and families with a case manager who works with a private landlord. Their Community Re-Housing Program may assist with permanent housing, short-term rental assistance, and continuing case management. The program also offers support to low-income individuals with poor credit or rental history by issuing a limited number of housing vouchers through Bellingham Housing Authority. Currently, the Program serves up to 40 households.

Local Churches

If local church organizations are willing to donate land in the Alderwood Neighborhood, the City of Bellingham could partner with a developer to build affordable housing units. Affordable units do not generate a large profit. Developers are more likely to build affordable units if they are given free land as an incentive.

Chuckanut Health Foundation

The Chuckanut Health Foundation is a non-profit organization that specializes in funding projects that promote individual and community health in Whatcom County. At present, the organization has contributed over $16 million to projects that

further public health priorities. Organizations may submit grants to CHF requesting for funding by April 1st or October 1st of each year, and must meet seven guidelines outlined on their website. Within the proposal, applicants must demonstrate that their project addresses a community health need, that they have a strategic plan to address that need, other sources of funding that is available, and that they are engaging in community participation, these are a few requirements among other guidelines. A partnership with Chuckanut Health Foundation and other supportive agencies has the potential to fund a safe and affordable housing development in the Alderwood Neighborhood.

Whatcom Community Foundation

The Whatcom Community Foundation awards donor recommended and competitive grants each year intended for community enrichment. Donors can specify where they want their funds allocated or organizations can compete for funds through a competitive application process. Projects awarded funding for the 2017 year focus on children with special needs, the environment, and youth & family. At present, no grants awarded for 2017 are allocated directly for housing assistance. However, there is still potential for organizations to apply for grants specifically for affordable housing developments in the future. In the past, the WCF has partnered with Lydia Place and Mercy Housing Northwest to fund supportive services for vulnerable individuals/families in the County.

Bellingham/Whatcom County Housing Authority

The Bellingham & Whatcom County Housing Authorities provide incentives for private investors to develop affordable housing in the form of special tax credits and bonds. Affordable housing is reserved for low-income, senior, and special needs individuals, and all housing is energy efficient. The B/WCHAs also partner with private landlords to provide private housing assistance based on income through a Housing Choice Voucher Program. Private Housing Assistance also subsidizes specific units (as opposed to individuals).

12.4 Recommendations

The current percentage of individuals living below the poverty level in Bellingham is 23% according to 2012 United States Census data. Therefore, the City of Bellingham should set aside at least a quarter of new housing development as affordable in order to limit homelessness in the community. Additionally, the City of Bellingham should continue to pursue partnerships with the local non-profits mentioned above to assist in the financing of affordable housing in the Alderwood Neighborhood.

Whatcom Community Foundation

Bellingham Whatcom County Housing Authorities

Chuckanut Health Foundation

13. Neighborhood Mobility Plan

13.1 Curb Ramps

Curb ramps, also referred to as curb cuts, are required by the City of Bellingham in transportation policy recommendation 2.3 which states, “Ensure that the transportation system is accessible to people with disabilities, and that an ADA [Americans with Disabilities Act] Transition Plan is completed to identify obstacles to access, develop a work plan to remove those obstacles, and identify responsible parties” (Bellingham, 2012, 2-2). Curb ramps are placed to make street crossing and accessibility more accommodating to people with visual impairments and physical limitations. State and local governments are required to include curb ramps in the design of public walkways by Title II of the ADA (Americans, 2016). The 2010 update of ADA requirements calls for all projects implemented after March 15, 2012 to follow design standards for curb ramps.

The Alderwood neighborhood currently has 26 curb cuts that meet ADA requirements. Alderwood does not have sidewalks on a majority of residential streets and this has resulted in a low number of existing curb ramps because sidewalks and curb ramps are most often constructed together in projects. With the recommended sidewalk development projects, a total of 118 curb ramps should be constructed in the Alderwood neighborhood. The determination of the amount and locations of curb ramps has been determined based on the phasing of sidewalks in Alderwood and the table below describes the summary of phasing. The table also describes the cost of curb ramp infrastructure. The determined cost per curb ramp unit is based on bid tabulations from the city Public Works Department’s reports for the 2015 Alabama Corridor Improvement project (ES-0466) and 2014 Street Overlay and Storm Retrofit Program (ES495). The engineer estimate of the cost of curb ramps in the Alabama Corridor Multimodal Safety Improvement Project is $300 per unit of truncated domes and $20 per unit of pedestrian curb, both illustrated in figure 1 (Alabama, 2014). This engineer estimate for curb ramps in the 2015 project is lower than the estimations for the 2014 project, which was estimated to be $490 per unit of curb ramp components (Bid, 2014). Comparing the two projects, the cost of the components of curb ramps may be discounted when purchased in larger quantities; the 2015 Alabama Corridor project included the cost of 41 units of truncated domes at $300 while the 2014 project included 30 units at $400.

With the recommendation of 118 curb ramps in the Alderwood neighborhood over the course of 20 years, the materials for curb ramps are projected to be bought incrementally with each project phase and are likely to be more expensive because of this. With the engineer estimates per unit from these two projects, curb ramps in Alderwood are estimated to be $405 per unit because the recommended number of curb ramps of every phase, with the exception of phase 2, is less than 30 units. The cost of implementing curb ramps is calculated here as independent from the cost of sidewalk infrastructure but the cost of sidewalk infrastructure usually includes ADA ramp units and is likely to be paid for under the same source of funding as sidewalk infrastructure.

	Curb Ramps	Cost
	-	$405 per curb ramp
Phase 1	21 units	$8,505
Phase 2	54 units	$21,870
Phase 3	18 units	$7,290
Phase 4	25 units	$10,125
Total	118 units	$47,790

Phase 1

Phase 2

Phase 3

Phase 4

13.2 Crosswalks

The Alderwood Neighborhood has two existing crosswalks, one on Alderwood and Bennett and the other on Alderwood and Willowwood. Alderwood and Bennett is the only place for a pedestrian to cross on Bennett between the Alderwood and Birchwood neighborhoods. The Alderwood and Willowwood crosswalk is in a practical spot for the two-lane crossing of Alderwood Ave, particularly for students who walk to Alderwood Elementary school. The elementary school is the center of the Alderwood neighborhood, which also functions as a central community meeting center for local residents. The principal of Alderwood Elementary School has expressed serious concern with the safety of students walking to and from school. It would serve students and the general community to have safe access across streets around the school.

There are twenty proposed crosswalks for the Alderwood neighborhood for the next twenty years. Chris Comeau of the City of Bellingham Public Works to Department was instrumental in providing information regarding which streets require which kind of crosswalk and the costs of infrastructure. Phase one shows eight crosswalks; these represent the places where crosswalks are needed most urgently. The most important locations are around the Elementary school and along the main streets of Bennett and Marine.

By recommendation of the City of Bellingham’s transportation planner, a flashing crosswalk will be installed where there is currently only a marked crosswalk on Bennett and Alderwood. This is a central entrance point to the Alderwood neighborhood, where there will be heavy traffic around school start and end times. Phase two includes adding 6 new crosswalks. This phase includes another crosswalk across Marine, a crosswalk across Alderwood, and completing four crosswalks at the intersection of McLeod and Bennett, where there will a new four way stop light installed as well. Phase three will introduce three more crosswalks on Marine and Bennett. Phase four will be the final three crosswalks that will complete the access across Bennett, Marine, and access to Alderwood Elementary from every part of the neighborhood.

With the completion of these four phases there will be twenty new crosswalks; they will increase the safety of the neighborhood and the pedestrian connectivity for the residents of Alderwood. Students will be able to cross streets safely and neighborhood connectivity will be increased.

	Crosswalks	Cost
	-	Flashing: $150,000 Marked: $770
Phase 1	1 flashing crosswalk 7 marked crosswalks	$155,390
Phase 2	6 marked crosswalks	$4,620
Phase 3	3 marked crosswalks	$2,310
Phase 4	3 marked crosswalks	$2,310
Total	1 flashing crosswalk 19 marked crosswalks	$164,630

Combined Phasing Map

Proposed Flashing Crosswalk (Green)

Proposed Painted Crosswalks (Red)

Existing Crosswalks (Purple)

13.3 Sidewalks

The current sidewalk infrastructure in the Alderwood is minimal. Currently there are sidewalks along only a short section of Marine Dr, a short section of McLeod, Airport Dr, Bennett Dr, and on Hollywood Ave in front of the elementary school. In front of the school the sidewalk is broken and noncontinous. The sidewalk starts on the west side of Hollywood Ave, ends and then the sidewalk is continued across the street on the east side running along the school and ending before the intersection of Hollywood Ave and Alderwood Ave.

The Bellingham Master Pedestrian Plan calls for all roads to eventually install sidewalks on both sides of the street. The primary goal in Alderwood is to line all of the major roads with sidewalks on at least one side.
Basic sidewalks (5 feet in width) cost about $7 per linear foot in Bellingham. This can change depending on environmental and location factors. Phasing of the sidewalks starts by adding sidewalks around the elementary school and then radiating outward. Phase 1 will include Hollywood Ave along Alderwood Elementary, Alderwood Ave east of Hollywood, and Cherrywood Ave. These three roads surround Alderwood Elementary. Phase 2 will include McAlpine Rd, Cottonwood Ave, Alderwood Ave west of Hollywood Ave, Willowwood Ave, and Alderwood east of Alderwood Elementary. Phase 3 will include Boxwood Ave, Cherrywood Ave, and McLeod Ave. Phase 4 will add sidewalks to the missing sections along Marine Dr and Locust Ave.

Sidewalks are vital to a burgeoning and healthy neighborhood. Sidewalks improve pedestrian safety. This is especially important due to the large number of young children in the community. Neighborhood connectivity is also improved with sidewalks, allowing residents to move freely throughout the neighborhood safely.

	Sidewalks	Cost
	-	$7 per linear foot
Phase 1	4,831 ft	$34,106
Phase 2	5,215 ft	$36,817.90
Phase 3	2,467 ft	$17,417.02
Phase 4	3,734 ft	$26,362.04
Total	16,247 ft	$114,703.82

Phase 1

Phase 2

Phase 3

Phase 4

13.4 Streetlights

The Alderwood community currently has 1 streetlight across from the Alderwood Elementary School. City-owned streetlights are currently being replaced and upgraded while Puget Sound Energy (PSE) lights will be replaced in the future. The new fixtures deliver improved vertical light distribution, reduce light trespass (both horizontally and vertically), and clearer lighting on community streets. They are also dark-sky compliant, reducing light pollution. The LED lights are expected to save the City approximately $200,000 annually. The LED lights are guaranteed to last 10 years, and are expected to last 20 years, versus the high-pressure sodium lights, which need to be replaced every 3-5 years.

LED fixtures are 100% recyclable and do not use toxic substances. Smart controls on the lights can dim when there is no activity on the road, alert officials when maintenance is needed, or flicker to show emergency responders the location of a 911 call. Some cities have experimented with adding solar panels, telecommunication equipment, sensors or security cameras to the streetlights. These all allow the City to monetize their assets while managing energy usage and cost.

LED lights illuminate and support the principles of Crime Prevention through Environmental Design (CPTED) in addition to providing greater visibility for pedestrians, bicyclists, and Drrs at night. LED technology can reduce energy required for illumination by 50-60% compared to high-pressure sodium lights.

	Streetlights	Cost
	-	$50,000 per light
Phase 1	15 Lights	$750,000
Phase 2	16 Lights	$800,000
Phase 3	19 Lights	$950,000
Phase 4	20 Lights	$1,000,000
Total	70 lights	$35,000,000

Phase 1

Phase 2

Phase 3

Phase 4

13.5 Traffic Signals

The Alderwood community currently has no traffic lights inside the neighborhood, with the nearest ones located on Airport Dr.

Combined Phasing Map

	Traffic Signals	Cost
	-	$400,000 per unit
Phase 1	-	-
Phase 2	1 signal	$400,000
Phase 3	-	-
Phase 4	-	-
Total	1 signal	$400,000

13.6 Bike Infrastructure

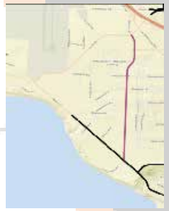
The Alderwood community currently has about 4,618 feet of bike lane, all located along Marine Dr. The current bike lane starts at Little Squalicum Park and runs up to the intersection of McAlpine Rd and Marine Dr. The Alderwood community is forecasted to receive new infrastructure laid out in the Bellingham bicycle comprehensive plan. However, the timing of these improvements is not clearly stated in the current bike plan.

The new infrastructure would add 3.7 miles of bike lane and 1.5 miles of bike boulevards. Bike boulevards would be installed during the first phase of infrastructure expansion. Bike boulevards are proposed around the Alderwood Elementary school and down Alderwood Ave. Since many children bike to and from the school, this area needs to be improved first. Phase one would also include the building of a bike lane across I-5 from the intersection of Bennett Ave and Airport Way to the intersection of W Bakerfield Rd and Pacific Highway. This addition would help Alderwood residents access the commercial center across I-5 by bike. Phase two would add bike lanes on Bennett Ave from the intersection at Bennett Ave and Airport Dr to the intersection of Marine Dr and Bennett Ave. Phase three includes adding bike lanes along Airport Dr from I-5 to the intersection of Marine Dr and Airport Dr. The final phase would see the expansion of the bike lanes on Marine Dr up to the bridge crossing the railway tracks in western Alderwood.

Pricing for these improvements came from studying the existing Bellingham bicycle master plan, in the plan there are cost estimates of the construction of new bike lanes and bike boulevards. An average price per foot was multiplied by the total new footage of bike lanes and boulevards. A price of roughly $14.80 per foot of bike lane was found while the Average cost per foot of bike boulevards was $6.90. By multiplying these numbers by the total new footage of bike infrastructure needed, the total cost of new bike lanes would be roughly $283,353 and about $52,702 for the cost of new bike boulevards.

	Bike Lane	Bike Boulevard	Cost
	$14.80 per foot	$6.90 per foot	-
Phase 1	$21,238	$52,879	$74,117
Phase 2	$95,815	-	$95,815
Phase 3	$85,544	-	$85,544
Phase 4	$80,763	-	$80,763
Total	$283,360	$52,879	$336,239

Phase 1



Phase 2

Phase 3

Phase 4

Estimated costs of recommended infrastructure improvements

	Total Units	Cost per Unit	Total Cost
Curb Ramps	118 units	$405 per unit	$47,790
Street Lights	70 lights	$50,000 per light	$3,500,000
Traffic Signals	1 signal	$400,000 per signal	$400,000
Sidewalks	16,247 linear feet	$7 per foot	$113,729
Crosswalks	20 crosswalks: 1 flashing 19 marked	Flashing: $150,000 Marked: $770	$164,630
Bike Boulevards	7,920 linear feet	$6.90 per foot	$54,702
Bike Lane	19,536 linear feet	$14.80 per foot	$283,353
Total Improvement Cost	-	-	$4,564,204

Estimated Cost by Development Phases

	Phase 1:5 years	Phase 2: 10 years	Phase 3: 15 years	Phase 4: 20 years
Curb Cuts (Cost included in TIP sidewalk renovations)	21 units $8,505	54 units $21,870	18 units $7,290	25 units $10,125
Street Lights	15 Lights $750,000	16 Lights $800,000	19 Lights $950,000	20 Lights $1,000,000
Traffic Signals	-	$400,000	-	-
Sidewalks	4,831 ft $34,106	5,215 ft $36.818	2,467 ft $17,417	3,734 ft $26,362
Crosswalks	8 crosswalks $155,390	6 crosswalks $4,620	3 crosswalks $2,310	3 crosswalks $2,310
Bike Boulevards	$52,507	-	-	-
Bike Lanes	$21,238	$95,815	$85,544	$80,756
Phase Totals	$1,023,941	$1,359,123	$1,062,561	$1,119,553

Part III:
Neighborhood Infill Development Strategies

14. Neighborhood Infill Opportunites

14.1 Projected Public Infrastructure and Services Expenses

The planning studio analyzed infrastructure improvements necessary for enhancing mobility and promote walking in a safe environment throughout the Alderwood Neighborhood. The mobility section in Ch. 6 discusses in more detail the projected costs associated with mobility infrastructure. Chapter 8 provides detail on projected costs associated with parks and trails improvements.

This financial analysis section of the study summarizes the costs for mobility and parks improvements, as well as for public services, to support projected future population growth. Furthermore, this section was estimated using a ratio of one officer per 1,000 additional residents. Note that these cost estimates do not necessarily reflect City of Bellingham actual costs associated with the provision of additional personnel, as those estimates were not available at the time of publication of this report. Unit costs for police officers were extrapolated using contract reports found on the Municipal Research and Services Center Document Center site, which define costs and services for the Cities of Woodinville (2006) and Stanwood (2014) in Interlocal Agreements relating to law enforcement services. In 2006, the City of Woodinville contracted with King County Sheriff's Office to provide policing services at the unit cost of $131,368 per 1.0FTE position. In 2014, the City of Stanwood and Snohomish County entered into an Interlocal Agreement which provided all related costs per deputy sheriff. The unit cost under the Snohomish-Stanwood contract totaled $133,253 per 1.0FTE position. Assuming increases to wages, costs, and the provision of equipment associated with insurance and provision of equipment to officers over the 20-year phasing of each urban village within the Alderwood neighborhood, an estimate of $150,000 per .1.0 FTE officer is assumed. This number includes wages, benefits, training, and equipment. The number of additional officers needed was estimated using a ratio of one officer per 1,000 additional residents. Note that these cost estimates do not necessarily reflect City of Bellingham actual costs associated with the provision of additional personnel, as those estimates were not available at the time of publication of this report.

Unit costs for firefighters was found to be more difficult to estimate. Searches for unit costs for firefighters show broad variability. For example, the research found costs per 1.0 FTE firefighter of $236,000 in Orlando, FL, and $217,000 in San Diego, CA. For purposes of this study, a more conservative figure of $175,000 per 1.0 FTE was used for wages, benefits, and equipment. The cost estimates for current and future personnel needs are intended as general estimates pending a detailed analysis by the City, and do not represent actual costs as determined by the City. Further, these services estimates do not include the costs associated with construction and operation of new police or fire stations that may be required in the future.

Expenses	Phase 1	Phase 2	Phase 3	Phase 4
Projected Public Infrastructure Expenses	$1,023,941	$1,359,123	$1,062,561	$1,119,553
Park System	$145,000	$50,000	$100,000	$23,500
Police Services at Annexation	$750,000	-	-	-
Fire Services at Annexation*	$875,000	-	-	-
Police Service After Annexation	$75,000	$75,000	$75,000	$75,000
Fire Service After Annexation	$87,500	$87,500	$87,500	$87,500
Totals	**$2,081,441**	**$1,571,623**	**$1,325,061**	**$1,305,553**

This study estimates that 5 additional police and fire positions will be needed after the Alderwood Neighborhood is annexed into the City of Bellingham in order to meet levels of service as established by the City. This expense is incorporated into the first phase of four development phases to reflect anticipated costs incurred during the first five years following annexation. Thereafter, expenses correspond to population growth with respect to the infill analysis estimates of approximately 2,000 additional residents over a 20-year period. This section does not include Urban Village population that are provided in the following sections of the report. The table in Figure 7 reflects the total expenses in each of the four development phases. The total expenses that encompass infrastructure, parks, police and fire over the next 20 years is estimated at $6,283,678.

Type of Use	Avg. Price per Sq. Ft.	General Fund Levy Rate per $1000
Single Family	$191.49	$0.001561
Single w/ ADU	$181.49	$0.001561
Multi-Family	$89.42	$0.001561
Commercial	$119.00	$0.001561

14.3 Projected Revenues

The fiscal impact analysis is an estimate of the revenue that the city can expect from annexing the Alderwood neighborhood. To calculate this, the studio assessed 20 comparable properties for four different land use types. Those land use types included: single-family residential (including townhouses), single-family residential with ADUs, multifamily residential and commercial properties. For each comparison the studio divided the appraised value by the building improvement square footage. That resulted in the finding of the average price per square foot. Then, the studio used the unique price per square foot per category of land use and multiplied it by Bellingham General Fund's tax levy rate (1.488120995 per $1000.00). The resulting number is the average Tax received per square foot of each individual use.

The Studio then used the phasing information to estimate the amount of tax revenue expected from the new development in the Alderwood neighborhood. This was done by multiplying the square footage from the phasing by the Average price per square foot for each individual land use type, resulting in the estimated assessed value

Type of Use	5 year Phasing	Sq. Ft.	Estimate General Fund Tax Revenue
ADUs	25 units	13,125	$3,541.79
Multi-Family	210 units	210,000	$27,944.07
Total	235	223,125	$31,488.86

of new development in Alderwood over twenty years. That number is then multiplied by the Tax Levy rate to calculate the estimated amount of tax revenue received from new development (Square Footage of new development x Average Price per sq. ft. x Tax Levy Rate). This information can be used to estimate the surplus revenue or tax deficiencies in comparison to the infrastructure improvements needed in the area.

The Studio estimates a tax revenue increase of $314,914.19 per year from 44,625 sq. ft. of new development in the Alderwood neighborhood over twenty years. This estimate is based on the 2016 Levy Rates for the individual categories (general fund, port of Bellingham, school fund etc.) and does not include any impact fees associated with the new development. The city can apply these funds to infrastructure improvements and resources that are needed around the Alderwood neighborhood.

The studio also calculated the estimate tax revenue from four different possible urban village concepts in the Alderwood neighborhood. These revenues are in addition to the revenues of the whole neighborhood phasing that were provided above.

FISCAL ANALYSIS WORK TABLE — Infill Development

Neighborhood Area: New Development

					Rate per $1000 City General Fund	Annual Revenue General Fund	Rate per $1000 City Misc.	Annual Revenue Misc. City Funds	Rate per $1000 Port of Bellingham	Annual Revenue Port of Bellingham	Rate per $1000 School District	Annual Revenue School District	Rate per $1000 State Revenues	Annual Revenue WA State	Total Local Revenue - All Sources	Total COB General Fund Only Revenue
Phase 1	**Land use type**	**Total sq ft**	**Assessed Value / sf**	**Total Assess Value**												
Years 1-5	Commercial		119.00	$0.00	0.015610	$0.00	0.010684	$0.00	0.004109	$0.00	0.044008	$0.00	0.023067	$0.00		
	Commercial Mixed - 3 story		99.28	$0.00	0.015610	$0.00	0.010684	$0.00	0.004109	$0.00	0.044008	$0.00	0.023067	$0.00		
	Commercial Mixed - 2 story		104.21	$0.00	0.015610	$0.00	0.010684	$0.00	0.004109	$0.00	0.044008	$0.00	0.023067	$0.00		
	Residential Single Family		191.49	$0.00	0.015610	$0.00	0.010684	$0.00	0.004109	$0.00	0.044008	$0.00	0.023067	$0.00		
	Residential ADU	13125.00	181.49	$2,382,056.25	0.015610	$37,184.26	0.010684	$25,450.79	0.004109	$9,787.35	0.044008	$104,830.49	0.023067	$54,946.32		
	Residential Multi	210000.00	89.42	$18,778,200.00	0.015610	$293,130.59	0.010684	$200,633.39	0.004109	$77,155.49	0.044008	$826,398.56	0.023067	$433,152.20		
	Total Assessed Value Year 5			**$21,160,256.25**	0.015610	$330,314.86	0.010684	$226,084.18	0.004109	$86,942.84	0.044008	$931,229.04	0.023067	$488,098.51		
	Total Tax Revenue Generated to City Year 5														$1,574,570.92	**$330,314.86**

					Rate per $1000 City General Fund	Annual Revenue General Fund	Rate per $1000 City Misc.	Annual Revenue Misc. City Funds	Rate per $1000 Port of Bellingham	Annual Revenue Port of Bellingham	Rate per $1000 School District	Annual Revenue School District	Rate per $1000 State Revenues	Annual Revenue WA State	Total Local Revenue - All Sources	Total COB General Fund Only Revenue
Phase 2	**Land use type**	**Total sq ft**	**Assessed Value / sf**	**Total Assess Value**												
Years 6-10	Commercial		119.00	$0.00	0.015610	$0.00	0.010684	$0.00	0.004109	$0.00	0.044008	$0.00	0.023067	$0.00		
	Commercial Mixed - 3 story		99.28	$0.00	0.015610	$0.00	0.010684	$0.00	0.004109	$0.00	0.044008	$0.00	0.023067	$0.00		
	Commercial Mixed - 2 story		104.21	$0.00	0.015610	$0.00	0.010684	$0.00	0.004109	$0.00	0.044008	$0.00	0.023067	$0.00		
	Residential Single Family		191.49	$0.00	0.015610	$0.00	0.010684	$0.00	0.004109	$0.00	0.044008	$0.00	0.023067	$0.00		
	Residential ADU	13125.00	181.49	$2,382,056.25	0.015610	$37,184.26	0.010684	$25,450.79	0.004109	$9,787.35	0.044008	$104,830.49	0.023067	$54,946.32		
	Residential Multi	210000.00	89.42	$18,778,200.00	0.015610	$293,130.59	0.010684	$200,633.39	0.004109	$77,155.49	0.044008	$826,398.56	0.023067	$433,152.20		
	Total Assessed Value Year 10			**$42,320,512.50**	0.015610	$660,629.72	0.010684	$452,168.35	0.004109	$173,885.68	0.044008	$1,862,458.08	0.023067	$976,197.02		
	Total Tax Revenue Generated to City Year 10														$3,149,141.83	**$990,944.58**

					Rate per $1000 City General Fund	Annual Revenue General Fund	Rate per $1000 City Misc.	Annual Revenue Misc. City Funds	Rate per $1000 Port of Bellingham	Annual Revenue Port of Bellingham	Rate per $1000 School District	Annual Revenue School District	Rate per $1000 State Revenues	Annual Revenue WA State	Total Local Revenue - All Sources	Total COB General Fund Only Revenue
Phase 3	**Land use type**	**Total sq ft**	**Assessed Value / sf**	**Total Assess Value**												
Years 11-15	Commercial		119.00	$0.00	0.015610	$0.00	0.010684	$0.00	0.004109	$0.00	0.044008	$0.00	0.023067	$0.00		
	Commercial Mixed - 3 story		99.28	$0.00	0.015610	$0.00	0.010684	$0.00	0.004109	$0.00	0.044008	$0.00	0.023067	$0.00		
	Commercial Mixed - 2 story		104.21	$0.00	0.015610	$0.00	0.010684	$0.00	0.004109	$0.00	0.044008	$0.00	0.023067	$0.00		
	Residential Single Family		191.49	$0.00	0.015610	$0.00	0.010684	$0.00	0.004109	$0.00	0.044008	$0.00	0.023067	$0.00		
	Residential ADU	13125.00	181.49	$2,382,056.25	0.015610	$37,184.26	0.010684	$25,450.79	0.004109	$9,787.35	0.044008	$104,830.49	0.023067	$54,946.32		
	Residential Multi	210000.00	89.42	$18,778,200.00	0.015610	$293,130.59	0.010684	$200,633.39	0.004109	$77,155.49	0.044008	$826,398.56	0.023067	$433,152.20		
	Total Assessed Value Year 15			**$63,480,768.75**	0.015610	$990,944.58	0.010684	$678,252.53	0.004109	$260,828.51	0.044008	$2,793,687.13	0.023067	$1,464,295.53		
	Total Tax Revenue Generated to City Year 15														$4,723,712.75	**$1,981,889.15**

					Rate per $1000 City General Fund	Annual Revenue General Fund	Rate per $1000 City Misc.	Annual Revenue Misc. City Funds	Rate per $1000 Port of Bellingham	Annual Revenue Port of Bellingham	Rate per $1000 School District	Annual Revenue School District	Rate per $1000 State Revenues	Annual Revenue WA State	Total Local Revenue - All Sources	Total COB General Fund Only Revenue
Phase 4	**Land use type**	**Total sq ft**	**Assessed Value / sf**	**Total Assess Value**												
Years 16-20	Commercial		119.00	$0.00	0.015610	$0.00	0.010684	$0.00	0.004109	$0.00	0.044008	$0.00	0.023067	$0.00		
	Commercial Mixed - 3 story		99.28	$0.00	0.015610	$0.00	0.010684	$0.00	0.004109	$0.00	0.044008	$0.00	0.023067	$0.00		
	Commercial Mixed - 2 story		104.21	$0.00	0.015610	$0.00	0.010684	$0.00	0.004109	$0.00	0.044008	$0.00	0.023067	$0.00		
	Residential Single Family		191.49	$0.00	0.015610	$0.00	0.010684	$0.00	0.004109	$0.00	0.044008	$0.00	0.023067	$0.00		
	Residential ADU	13125.00	181.49	$2,382,056.25	0.015610	$37,184.26	0.010684	$25,450.79	0.004109	$9,787.35	0.044008	$104,830.49	0.023067	$54,946.32		
	Residential Multi	210000.00	89.42	$18,778,200.00	0.015610	$293,130.59	0.010684	$200,633.39	0.004109	$77,155.49	0.044008	$826,398.56	0.023067	$433,152.20		
	Total Assessed Value Year 20			**$84,641,025.00**	0.015610	$1,321,259.43	0.010684	$904,336.71	0.004109	$347,771.35	0.044008	$3,724,916.17	0.023067	$1,952,394.04		
	Total Tax Revenue Generated to City Year 20														$6,298,283.66	**$3,303,148.59**

Note 1: calculated based on average tax rate of 1 story commercial and either 2 or 3 stories Res MF
Note 2: in constant 2017 dollars
Note 3: resumes bonds and levies extended over 20 years
Note 4: total local revenue includes city, port, county, and school district revenues
Note 5: misc city revenue includes: city AFF HSG, fire pension, greenways, RDA, and affordable housing
Note 6: port of bellingham revenues include GO bond, General fund, and RDA
Note 7: school district fund includes bond, capital projects,and MSO fund
Note 8: county revenues include current expense, mental health, development disability, election reserve, and veterans relief funds

15. Urban Village Center Opportunity 1

Bennett Urban Village

15.1 Introduction

Bennett Village is located within the Alderwood neighborhood at the intersection of Bennett Drive and Mcleod Road. This location provides for the type of mixed uses and public services that will support the future growth of the City of Bellingham. This area is designed to serve as a central core urban area serving both the Alderwood neighborhood as well as the western edge of the Birchwood neighborhood, with a mix of residential densities, commercial uses and public services. The area contains several properties suitable for higher density development, along with several existing residential properties that the plan integrates within the urban village. To the north of the site there are several existing commercial uses along Bennett Road. It is less than five minutes from Interstate 5 and allows for easy access to the rest of the surrounding areas. The existing residences are low density on larger lots and multi-family housing exists two blocks to the west. The nearby multi-family housing creates a natural transition area to the commercial core of the urban village. The connectivity, development potential and proximity to existing multi-family housing makes this area an ideal location for concentrated neighborhood services and higher density housing options.

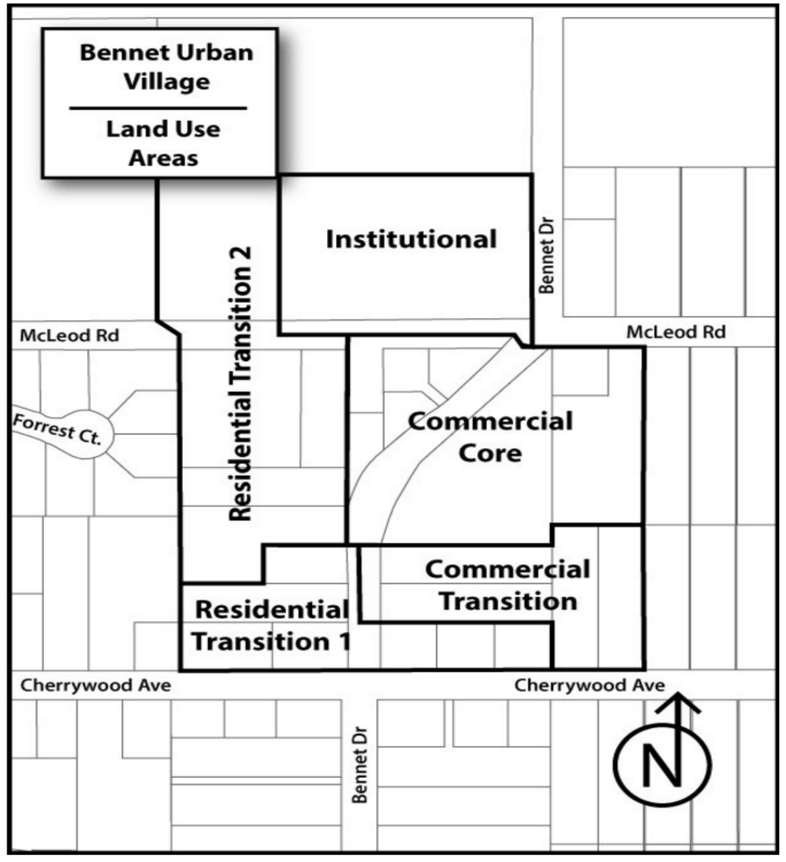
Bennett Urban Village Vision

Imagine heading down Bennett Drive from Bakerview Road, you enter the vibrant Alderwood neighborhood with mixed uses concentrated in an urban village, public open spaces, retail stores at the street level, affordable modern apartments and condominiums, and trails connecting residential areas to the main village center. Accessible to people of all ages, income levels and cultural backgrounds, Bennett Village located on Bennett Drive and Mcleod Road is conveniently located for accessibility and walkability for the surrounding single and multifamily housing, and for future growth expected to the north.

Residents can walk from their home or take a quick bus ride down Bennet Road to meet friends for coffee or a bite to eat. Students can meet classmates before taking the bus or riding their bike to either Bellingham Technical College or Whatcom Community College. Parents can enjoy watching their kids play outdoors on a playground located in the main urban village public open space. Bennett Village feels open, vibrant, and is landscaped with beautiful native plants blooming throughout the year making it feel more like an oasis than a city.

Commercial Core

This zone accommodates the core of commercial retail uses as well as higher density, multifamily housing. The plan envisions a concentration of businesses to serve as a social focal district to surrounding residential areas. The economic activity will breathe life and vitality into the neighborhood. It will also help provide the tax revenue for the infrastructure improvements in the Alderwood neighborhood.



Commercial Transation

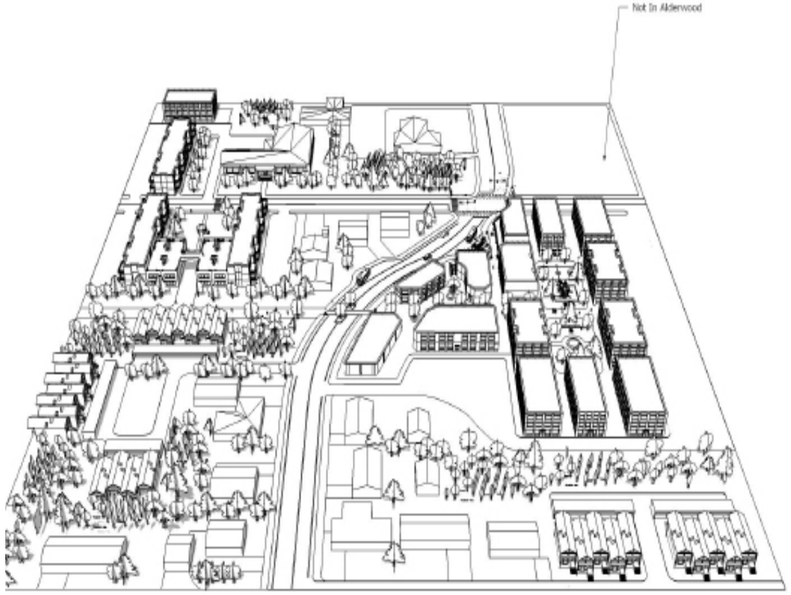
This zone provides a transition into the lower density residential neighborhood that is surrounding Bennett Urban Village. It is medium density and can accommodate some mixed uses that fit the surrounding single family residences. This area creates a buffer between high density mixed use and low density single family areas.

Residential Transition #1

This district primarily contains medium density housing, including townhomes, as a transition between the urban village core and surrounding single family residential areas. There is higher density housing, but it is not as dense as the other areas. Townhouses are an example of the building type that will be permitted. In areas such as these, there will not be any commercial uses to continue a smooth transition into the surrounding single family homes.

Residential Transition #2

This district consists of multifamily residential uses with densities higher than those permitted in Residential Transition 1. The district contains only higher density multi-family and is congruent with existing multi-family residences. This transitions leads into the commercial core and places more of the infill development closer to the amenities and services provided by the urban village.



Bennett Village is designed to provide a strong sense of community character for the Alderwood Neighborhood by providing commercial services, affordable housing options and public amenities such as public transportation, trails, park space, a community center and much more.

15.2 Redevelopment Potential

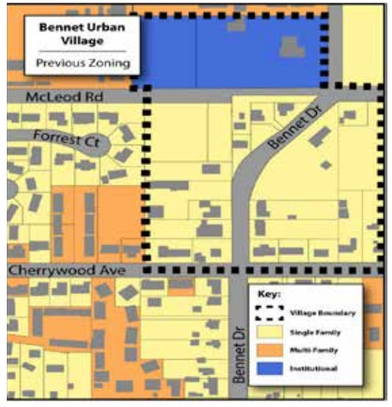
Each parcel in the Alderwood Neighborhood was evaluated for redevelopment potential based on current improvement conditions, relationship of assessed improvement values to property values, and the general conditions of existing structures. Through this method of analysis, the study concluded that the Bennett Village has the potential capacity to add 250 residential units and approximately 20,000 sq. ft. of commercial space over the next 20 years, depending on the economic environment and conditions and willingness of landowners to further develop their properties.

The table below summarizes the potential infill of new residential units, and associated residential population, for the neighborhood and for the Bennett urban village. The last column indicates the percentage of Bellingham's future population growth (38,000 new residents) that these sites can potentially absorb.

The Bennett urban village has a potential to support 250 new residential units consisting of both single family and multifamily units. The plan projects 30 units as new single family dwellings and ADUs, comprising approximately 35,000 sq. ft. with an average 1200 sq. ft. per unit. The remaining potential 220 units consist of high density multifamily and mixed development. These units will be provided by approximately 220,000 sq. ft. of new construction with an average unit size of 1,000 sq. ft.

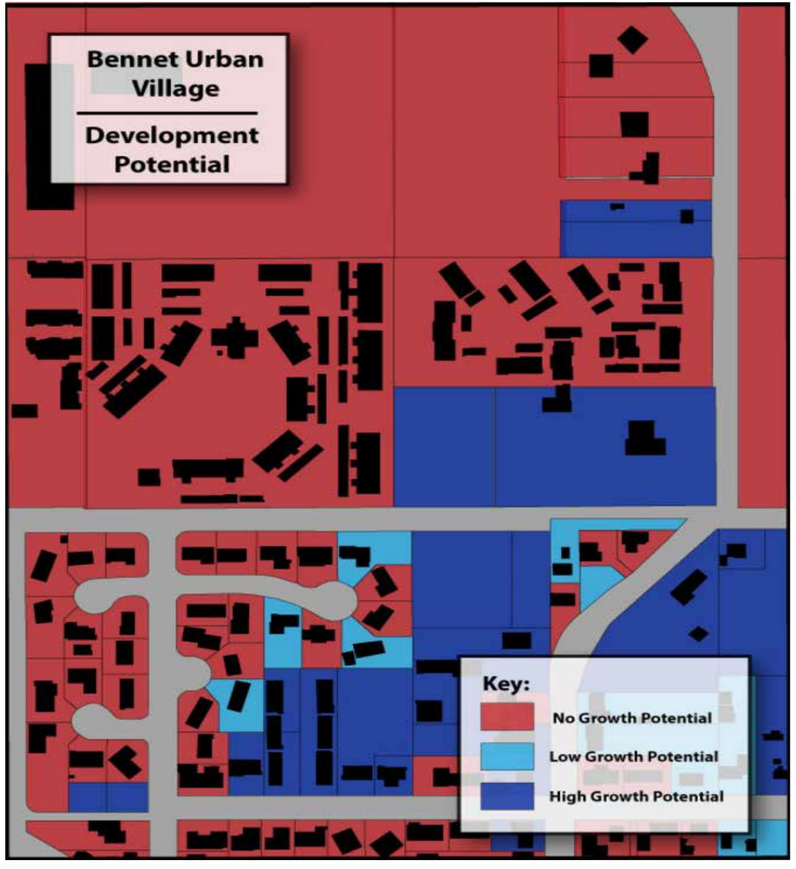
15.3 Implementation Strategies

- Adopt development regulations to insure all redevelopment complies with the community vision established in this document.
- Develop an economically feasible Floor Area Ratio (FAR) system, allowing for increase in development capacity in exchange for provision of public amenities such as affordable housing, green building, public plaza dedication and/or contribution to the Lake Whatcom Watershed Acquisition Fund.
- Assist neighborhood and business associations in developing a maintenance plan for public spaces, landscaping and other public amenities within the district.
- Study traffic alternatives for improving the intersection at Bennett and Mcleod Streets to improve the safety of the crossing, used as a walking route by school children.
- Require new developments to construct sidewalk improvements to the recommended standards between the property line and the curb.
- Explore grants and other financing tools to implement proposed street improvements for Bennett, Mcleod, and bike boulevards.
- Create a Maintenance District for the public spaces, landscaping and other public amenities within the sub area.
- Work with property and business owners to adopt an access management ordinance consolidating driveway curb-cuts at a minimum spacing of 200 feet.
- Establish a Local Improvement District (LID) to organize the proportional fair share cost of improvements and amenities in the area.



Growth Areas	Units	People	Absorption %
Alderwood UGA	894	2,145	5.65%
Bennett Urban Village	250	600	1.58%

Unit type	Total Square footage	Unit size	Number of units
Single family	35,000 sq ft	1,200 sq ft	~30
Multi family	220,000 sq ft	1,000 sq ft	~220



15.4 Parks, Plazas, and Neighborhood Connection

- Construct a minimum of one public plaza within the main core of the village. The plaza should be a minimum of 1000 square feet and abut at least one public street.
- Ensure that public plazas contain a mix of the following amenities:
  - Water feature
  - Landscaping (trees, shrubs, groundcover
  - Outdoor furniture & resting places
  - Unique paving or patterns
- Utilize existing undeveloped right-of-ways to enhance connections to and from the urban village and provide passive recreational opportunities.

Implementation Strategies

- Offer a density bonus for the dedication of land to construct a public plaza.
- Explore grants and other financing tools to help implement the proposed park improvement and street design and construction.

Circulation, Streetscape, and Parking Polices

The Bennet Urban village is located on the intersection of Bennett Drive and Mcleod Road in the Alderwood neighborhood. The intersection currently has no improvements, no sidewalks, no streetlights, and no crosswalks. The intersection is a main thoroughfare into the neighborhood and a prime location for development.

- Consolidate driveways along Bennet and McLeod whenever possible to increase automobile, bicycle and pedestrian safety.
- Improve safety along school walking routes by adding bulb-out sidewalks where Bennet intersects with Mcleod
- Improve pedestrian crossings with bulb-out sidewalks at the Mcleod Intersection with Bennet
- Add enhanced (flashing light) crossings to Bennett to improve safety for crossing pedestrians and bicyclists by alerting motorists.
- Encourage pedestrian use by constructing continuous sidewalks on Bennett and Mcleod Street.
- Create enhanced biking opportunities by constructing an east-west bike boulevard on Bennett.
- As traffic changes in the district over time, implement traffic management techniques, if warranted (based on established Public Works' adopted criteria) to regulate traffic flow through established neighborhoods.

Transit Policies

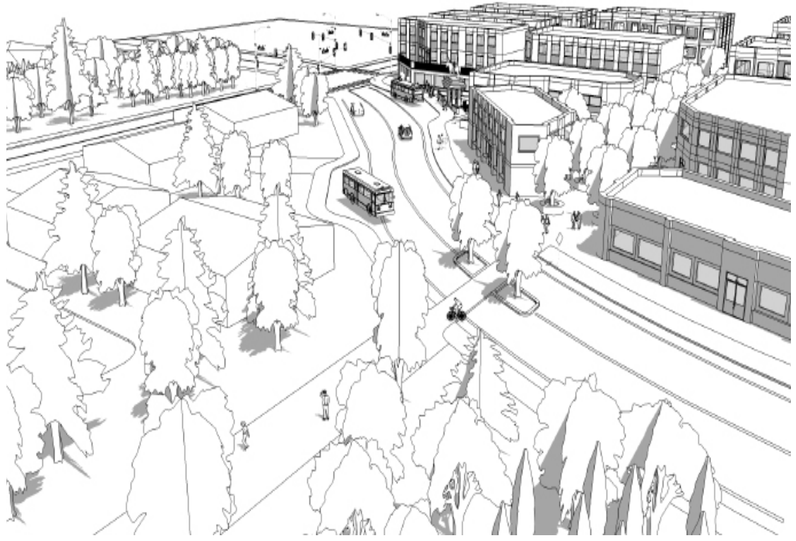
- Promote transit use by coordinating with private property owners to provide bus shelters and other bus stop amenities wherever possible. Orient development towards accessible transit stops to create a comfortable and safe environment for pedestrians and transit riders.
- Wherever possible, consolidate transit stops and fire hydrants into one location to maximize on-street parking opportunities.
- Encourage developers to work with the WTA to provide annual bus passes to residents and employees in exchange for development incentives such as reduced parking requirements. New developments that are proven through performance standards to reduce vehicle trips may also be eligible for a reduction in transportation impact fees
- Support street vacations when exchanged for newly dedicated right-of-way.
- Reduce the posted speed limit along Bennet to a maximum of 25 miles per hour as redevelopment occurs and automobile traffic increases to make the street more comfortable for bikes/pedestrians and increase the visibility of businesses to passerby.
- Highlight pedestrian crossings with bulb-out sidewalks, use of different surface materials and markings, and use of the landscape median as a mid-street pedestrian refuge.
- Establish a wayfinding system to guide people to and from the Bellingham Airport and Waterfront.
- Provide covered bus shelters and other amenities at bus stops and orient development towards transit stops to create a comfortable and interesting environment for pedestrians and transit riders and promote transit use.

Streetscape Polices

- Maximize sidewalk widths to improve pedestrian safety and comfort.
- Install pedestrian-scale lighting on Bennett and Mcleod Streets to enhance safety and create a sense of place.
- Wherever possible, design landscaping beds at bulb-out intersections to soften the streetscape and provide stormwater treatment opportunities.
- Whenever possible, add trees and landscaping to streetscapes within the project area.
- On residential streets where curb and gutter do not exist, encourage private property owners to demarcate the travel lane, parking spaces and planting strips, or form Local Improvement Districts to fund street improvements. Standards for upgrading streets should be consistent with the predominant character of the neighborhood. Add street furniture, public art, and pedestrian-scale lighting to streets within the Core to create a sense of place and define the center of the village.
- Provide stormwater treatment in public landscape beds wherever possible.
- Narrow the drive lanes on residential and commercial shopping streets to slow traffic and allow wider sidewalks.

Public Parking Polices

- Provide secure bicycle parking along sidewalks in close proximity to building entrances.
- Narrow the perceived width of arterials by striping parking spaces, and where possible, bike lanes.
- Maximize parking spaces and enhance pedestrian connectivity on residential streets in the Commercial Core and Transition areas by requiring new development to provide a pedestrian walkway between buildings and parking area. New commercial development should not be permitted to use the sidewalk as parking lot driveway access.



Capital Facilities

Bennett Village contains basic capital facilities, such as utility infrastructure, streets, and sidewalks. Enhancements are needed mainly in the form of public space improvements, sidewalks, bus stops, public trails, and street improvements to achieve a pedestrian friendly environment. Revitalization of the immediate area of Bennett Village will add character and desirability for future and current residents living in and near the village.

Developers should investigate new technologies that reduce additional impacts on the existing system without requiring an expansion of these systems. The Bennett Village area lacks many of the public amenities that ensure a safe walkable neighborhood that is aesthetically appealing. Streetlights, curb cuts, traffic signals, sidewalks, crosswalks, and bike lanes offer infrastructure that facilitates a cohesive and welcoming neighborhood.

	Phase One Costs	Phase Two Costs	Phase Three Costs	Phase Four Costs
Curb Cuts	$2,227.50	$2,227.50	$2,227.50	$2,227.50
Street Lights	-	-	-	-
Traffic Signals	$1,600,000	-	-	-
Sidewalks	$96,561.50	$96,561.50	$96,561.50	$96,561.50
Cross Walks	$1,155	$1,155	$1,155	$1,155
Bike Boulevard	-	-	-	-
Bike Lane	$65,095			
Total Costs	$1,765,039	$99,944	$99,944	$99,944

	Total Units	Cost per unit	Total Cost
Curb Cuts	22	$405 per curb cut	$8,910
Street Lights	-	$50,000 per light	$0
Traffic Signals	4	$400,000 per signal	$1,600,000
Sidewalks	55,178	$7.00 per linear aft.	$386,246
Cross Walks	6 (marked)	Flashing: $150,000 Marked: $770	$4,620
Bike Boulevards	-	$36,468 per mile	$0
Bike Lane	0.85	$76,583 per mile	$65,095

FISCAL ANALYSIS WORK TABLE

Infill Development

Village 1

			Assessed Value /		Rate per $1000 City General Fund	Annual Revenue General Fund	Rate per $1000 City Misc.	Annual Revenue Misc. City Funds	Rate per $1000 Port of Bellingham	Annual Revenue Port of Bellingham	Rate per $1000 School District	Annual Revenue School District	Rate per $1000 State Revenues	Annual Revenue WA State	Total Local Revenue - All Sources	Total COB General Fund Only Revenue
Phase 1	**Land use type**	**Total sq ft**	**sf**	**Total Assess Value**												
Years 1-5	Commercial	16000	119.00	$1,904,000.00	0.015610	$29,721.73	0.010684	$20,343.06	0.004109	$7,823.12	0.044008	$83,792.00	0.023067	$43,919.11		
	Commercial Mixed - 3 story		99.28	$0.00	0.015610	$0.00	0.010684	$0.00	0.004109	$0.00	0.044008	$0.00	0.023067	$0.00		
	Commercial Mixed - 2 story		104.21	$0.00	0.015610	$0.00	0.010684	$0.00	0.004109	$0.00	0.044008	$0.00	0.023067	$0.00		
	Residential Single Family	8750	191.49	$1,675,537.50	0.015610	$26,155.40	0.010684	$17,902.08	0.004109	$6,884.41	0.044008	$73,737.73	0.023067	$38,649.22		
	Residential ADU		181.49	$0.00	0.015610	$0.00	0.010684	$0.00	0.004109	$0.00	0.044008	$0.00	0.023067	$0.00		
	Residential Multi	61344	89.42	$5,485,380.48	0.015610	$85,627.63	0.010684	$58,607.88	0.004109	$22,538.22	0.044008	$241,402.82	0.023067	$126,529.94		
	Total Year 5			**$9,064,917.98**	0.015610	$141,504.77	0.010684	$96,853.01	0.004109	$37,245.75	0.044008	$398,932.55	0.023067	$209,098.27		
	Total Tax Revenue Generated to City Year 5														$674,536.08	**$141,504.77**

			Assessed Value /												Total Local Revenue - All Sources	Total COB General Fund Only Revenue
Phase 2	**Land use type**	**Total sq ft**	**sf**	**Total Assess Value**												
Years 6-10	Commercial	4189	119.00	$498,491.00	0.015610	$7,781.52	0.010684	$5,326.07	0.004109	$2,048.19	0.044008	$21,937.79	0.023067	$11,498.57		
	Commercial Mixed - 3 story		99.28	$0.00	0.015610	$0.00	0.010684	$0.00	0.004109	$0.00	0.044008	$0.00	0.023067	$0.00		
	Commercial Mixed - 2 story		104.21	$0.00	0.015610	$0.00	0.010684	$0.00	0.004109	$0.00	0.044008	$0.00	0.023067	$0.00		
	Residential Single Family	8750	191.49	$1,675,537.50	0.015610	$26,155.40	0.010684	$17,902.08	0.004109	$6,884.41	0.044008	$73,737.73	0.023067	$38,649.22		
	Residential ADU		181.49	$0.00	0.015610	$0.00	0.010684	$0.00	0.004109	$0.00	0.044008	$0.00	0.023067	$0.00		
	Residential Multi	52963	89.42	$4,735,951.46	0.015610	$73,928.93	0.010684	$50,600.70	0.004109	$19,458.98	0.044008	$208,421.65	0.023067	$109,243.05		
	Total Year 10			**$15,974,897.94**	0.015610	$249,370.62	0.010684	$170,681.85	0.004109	$65,637.34	0.044008	$703,029.71	0.023067	$368,489.10		
	Total Tax Revenue Generated to City Year 10														$1,188,719.52	**$390,875.38**

			Assessed Value /												Total Local Revenue - All Sources	Total COB General Fund Only Revenue
Phase 3	**Land use type**	**Total sq ft**	**sf**	**Total Assess Value**												
Years 11-15	Commercial		119.00	$0.00	0.015610	$0.00	0.010684	$0.00	0.004109	$0.00	0.044008	$0.00	0.023067	$0.00		
	Commercial Mixed - 3 story		99.28	$0.00	0.015610	$0.00	0.010684	$0.00	0.004109	$0.00	0.044008	$0.00	0.023067	$0.00		
	Commercial Mixed - 2 story		104.21	$0.00	0.015610	$0.00	0.010684	$0.00	0.004109	$0.00	0.044008	$0.00	0.023067	$0.00		
	Residential Single Family	12500	191.49	$2,393,625.00	0.015610	$37,364.85	0.010684	$25,574.39	0.004109	$9,834.88	0.044008	$105,339.61	0.023067	$55,213.17		
	Residential ADU		181.49	$0.00	0.015610	$0.00	0.010684	$0.00	0.004109	$0.00	0.044008	$0.00	0.023067	$0.00		
	Residential Multi	58278	89.42	$5,211,218.76	0.015610	$81,347.93	0.010684	$55,678.63	0.004109	$21,411.75	0.044008	$229,337.40	0.023067	$120,205.92		
	Total Year 15			**$23,579,741.70**	0.015610	$368,083.40	0.010684	$251,934.87	0.004109	$96,883.97	0.044008	$1,037,706.73	0.023067	$543,908.20		
	Total Tax Revenue Generated to City Year 15														$1,754,608.97	**$758,958.78**

			Assessed Value /												Total Local Revenue - All Sources	Total COB General Fund Only Revenue
Phase 4	**Land use type**	**Total sq ft**	**sf**	**Total Assess Value**												
Years 16-20	Commercial		119.00	$0.00	0.015610	$0.00	0.010684	$0.00	0.004109	$0.00	0.044008	$0.00	0.023067	$0.00		
	Commercial Mixed - 3 story		99.28	$0.00	0.015610	$0.00	0.010684	$0.00	0.004109	$0.00	0.044008	$0.00	0.023067	$0.00		
	Commercial Mixed - 2 story		104.21	$0.00	0.015610	$0.00	0.010684	$0.00	0.004109	$0.00	0.044008	$0.00	0.023067	$0.00		
	Residential Single Family	6250	191.49	$1,196,812.50	0.015610	$18,682.43	0.010684	$12,787.20	0.004109	$4,917.44	0.044008	$52,669.80	0.023067	$27,606.58		
	Residential ADU		181.49	$0.00	0.015610	$0.00	0.010684	$0.00	0.004109	$0.00	0.044008	$0.00	0.023067	$0.00		
	Residential Multi	32022	89.42	$2,863,407.24	0.015610	$44,698.23	0.010684	$30,593.73	0.004109	$11,765.11	0.044008	$126,013.97	0.023067	$66,049.52		
	Total Year 20			**$27,639,961.44**	0.015610	$431,464.05	0.010684	$295,315.80	0.004109	$113,566.52	0.044008	$1,216,390.51	0.023067	$637,564.30		
	Total Tax Revenue Generated to City Year 20														$2,056,736.88	**$1,190,422.84**

Note 1: calculated based on average tax rate of 1 story commercial and either 2 or 3 stories Res MF
Note 2: in constant 2017 dollars
Note 3: resumes bonds and levies extended over 20 years
Note 4: total local revenue includes city, port, county, and school district revenues
Note 5: misc city revenue includes: city AFF HSG, fire pension, greenways, RDA, and affordable housing
Note 6: port of bellingham revenues include GO bond, General fund, and RDA
Note 7: school district fund includes bond, capital projects,and MSO fund
Note 8: county revenues include current expense, mental health, development disability, election reserve, and veterans relief funds

16. Urban Village Site Opportunity 2

McAlpine Urban Village

Given that the Alderwood Neighborhood lies within the Bellingham urban growth area (UGA), the neighborhood will evetually need to develop an urban core. The region of land located east of Locust Road and Marine Drive is a potential area for the urban village. This location is optimal for a number of reasons, including:

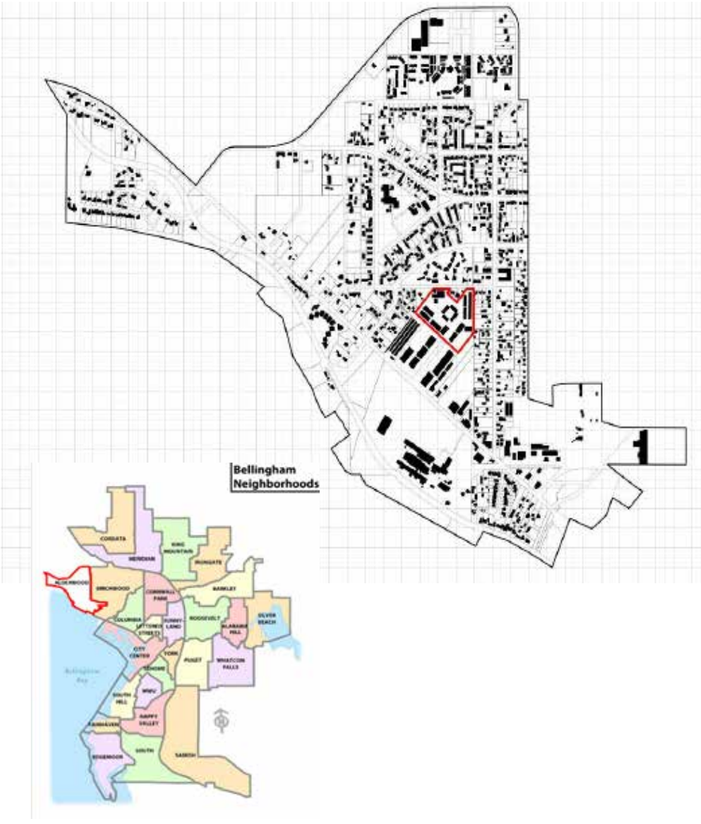
- Close proximity to the school facilitates easy access for children and avoids adding congestion around the school;
- The availability of developable land;
- The region's proximity to the waterfront.

Urban Design

The region of land located south of McAlpine Road, East of Locust Ave, North of Marine Drive, and West of Bennett Drive is a potential area for an urban village. This location is optimal for a number of reasons, including:

- Close proximity to the school facilitates improves accessibility for children and avoids adding to congestion around the school.
- The land is highly underutilized and develop-able. It is identified as soft space in the infill map and can support high density infill.
- The property also includes a view of the water front.

The total area of the village is 479,723 square feet. The plans calls for primary uses including townhouses and apartment buildings. There is a dense urban core in the center surrounded by commercial and mixed-use buildings. Parking will be available in multiple parking lots within the ur-ban village, as well as around the perimeter. And



there is the potential for an institutional building if a demand for such public uses is identified. The diversity of uses in such close proximity brings many social and economic benefits.

Vision

The urban village design incorporates multi-modal transportation options, open public spaces, and increased street amenities with an emphasis in affordable housing to accommodate low-income families needs and to attract potential future residents. Since the location is near the core of the Alderwood neighborhood, the urban village site well serves the needs of the community with close proximity to Marine Drive.

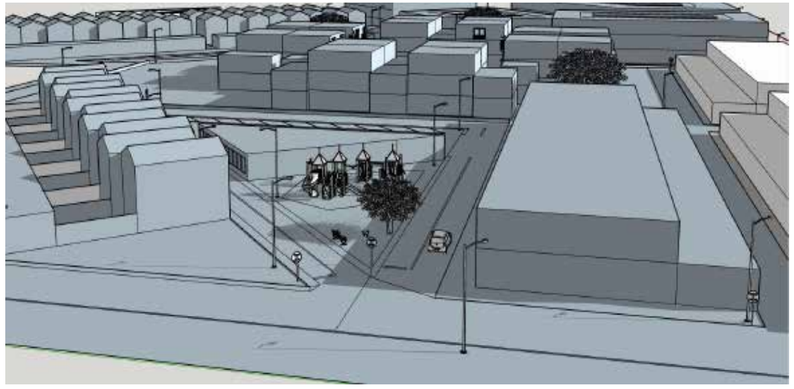
Redevelopment Potential:

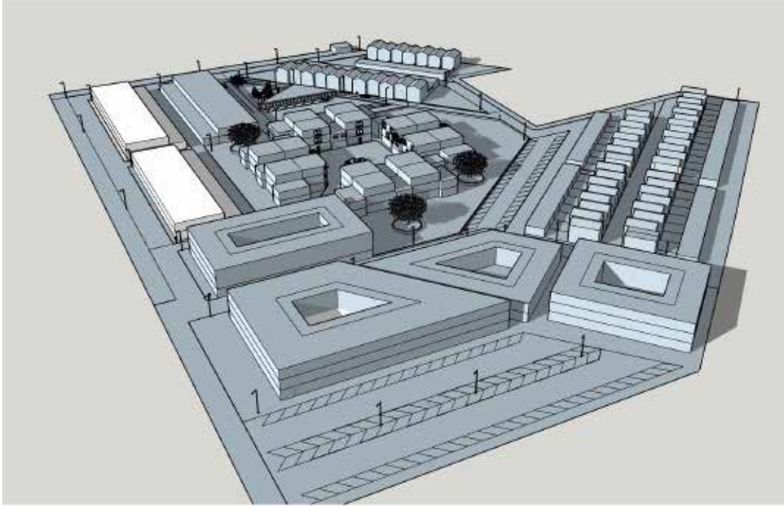
Because this property is largely vacant, the development potential is excellent for use as an urban village. The unused and underdeveloped space can be filled with residential, commercial, and mixed use buildings. This would not only increase the density of the Alderwood neighborhood, while also creating a seamless transition between the new development and its surrounding infrastructure. This urban village design respects the existing single family residential character in the surrounding area and provides a transition between the proposed urban core and single family and multi family residential units. The purpose is to strengthen a sense of character for the Alderwood neighborhood and village. The 479,723 square foot site allows for a blend of high density residential units and single family homes. The potential population increase is estimated to be 643 people, creating a central hub for the Alderwood neighborhood.

15-Minute Walking Radius (0.5 miles from the urban village)

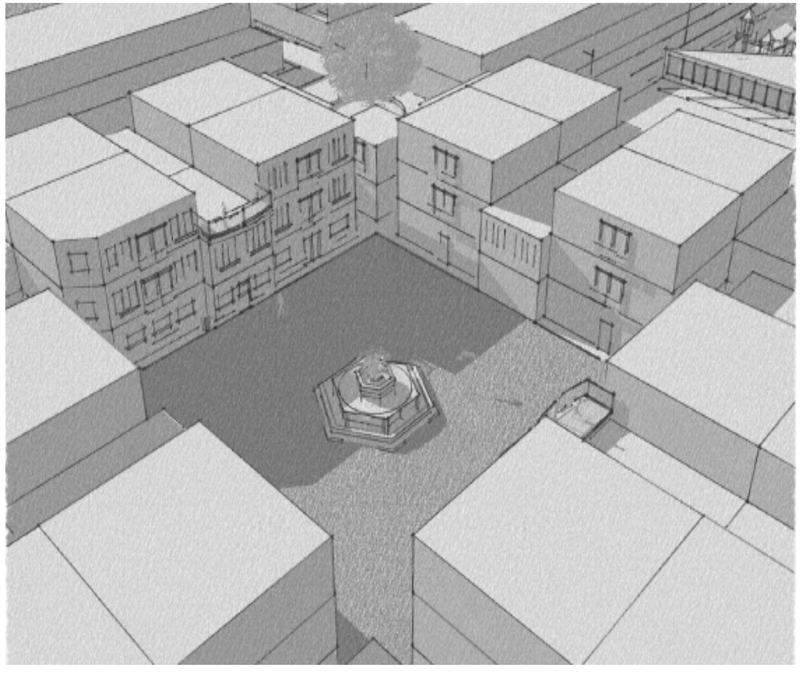
Circulation, Transit, Streetscape, Public Parking

This urban village proposal contains multiple areas where both residents and visitors can park. The single family homes, shown as yellow townhouses, are provided with a parking stall which meets the parking requirements set by the Bellingham Infill Toolkit guidelines. Area A in lime green parking area to the south east of the village provides the apartment residents enough parking spaces to accommodate one car per unit. The parking spots shown in Area B in pink are for commercial and institutional use, fulfilling the amount of parking spaces needed for the type of development as outlined in the village guidelines.





Ground map with and without proposed urban village



Implementation Strategies

Residential Transition (Townhouses)

Single family development is intended to be a transitional zone between the existing single family homes and the dense commercial core. The layout of townhouses creates a buffer between McAlpine Road and the surrounding development. Townhouses also allow residents the opportunity for private front and backyards. This urban village designation modifies the BMC 20.28 Infill Housing Toolkit by removing the maximum number of townhouse permitted at 8 units maximum. The FAR as well as maximum heights remain the same for the residential transition section to provide a seamless transition from the surrounding single family houses.

Residential Multi-Family

The residential multi-family zone is located along the southern portion of the urban village, near Mercer Ave. Being connected to Mercer Ave and McAlpine Rd will develop connectivity within the urban village. Apartments are two to three stories, allowing the three story apartment complexes the option to have the first story designated as a parking garage. The two and three story apartment complexes are strategically placed to allow all possible residents a view of the water.

Commercial Core

The commercial core is intended to support the larger residential neighborhood with the provision of shops, services, and dining uses. The buildings in the commercial zone are all facing inwards, looking into the central plaza. The commercial core buildings should adhere to Chapter X design guidelines, emphasizing human scale, and large retail windows.

Mixed Use

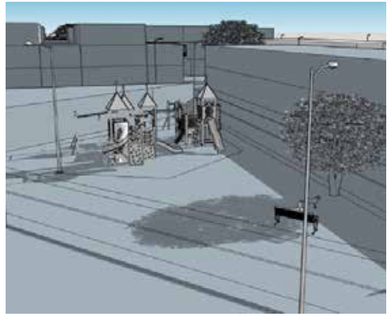
Mixed use development includes a combination of residential and commercial characteristics. The buildings face the center core of the village, near the fountain. Being in the center of the urban village provides pedestrian connection within the area and builds strong neighborhood character.

Institutional:

The institutional use can serve as a library, police station, or community center for the public depending on public priorities and future needs within the neighborhood for public services facilities. This building is situated as a transition between the single family townhouses and the urban core. A park is located adjacent to the building which would encourage engagement in the building, regardless of what function it may serve.

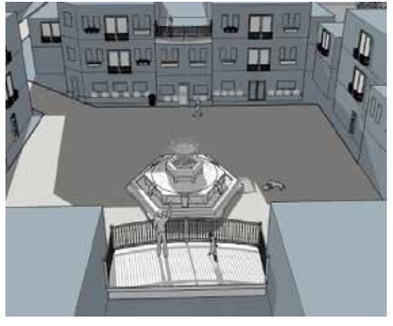
PARKS, PLAZAS, AND NEIGHBORHOOD CONNECTIONS

As there are currently few public spaces in the Alderwood area, the plan provides an open public space area surrounding the commercial core to stimulate community gathering and promote social capital.



Capital Facilities, Capital Improvement Plan

The planning of capital facilities is needed to provide adequate public facilities to serve existing and new development. A Capital Improvement Plan (CIP) is also suggested to provide a short-range plan that will provide a planning schedule and a options for a financing plan.



Phase 1	Public Necessity	Units for Cost Calculation	Cost per unit	Total Assessed Cost
Years 1-5	Curb Cuts (cost per curb cuts)	12	$405.00	$4,860.00
	Street Lights (cost per street light)	7	$50,000.00	$350,000.00
	Traffic Signals (cost per signal)	0	$400,000.00	$0.00
	Sidewalks (cost per linear foot)	319.00	$7.06	$2,252.14
	Marked Crosswalks (cost per crosswalk)	6	$770.00	$4,620.00
	Bike Boulevards (cost per mile)	0.00	$36,468.00	$0.00
	Bike Lanes (cost per mile)	0.00	$76,582.00	$0.00
	Residential New Streets (cost per linear foot)	646.00	$189.39	$122,345.94
	Additional Police Service (1 cop per 1000 people)	110	$150,000.00	$16,500.00
	Addition Fire Service (1 fireman per 1000 people)	110	$175,000.00	$19,250.00
	Total Assessed Cost Year 5			**$519,828.08**

Phase 2	Public Necessity	Units for Cost Calculation	Cost per unit	Total Assessed Cost
Years 6-10	Curb Cuts (cost per curb cuts)	8	$ 405.00	$3,240.00
	Street Lights (cost per street light)	12	$ 50,000.00	$600,000.00
	Traffic Signals (cost per signal)	0	$ 400,000.00	$0.00
	Sidewalks (cost per linear foot)	839.00	$ 7.06	$5,923.34
	Marked Crosswalks (cost per crosswalk)	4	$ 770.00	$3,080.00
	Bike Boulevards (cost per mile)	0.36	$ 36,468.00	$12,991.73
	Bike Lanes (cost per mile)	0.00	$ 76,582.00	$0.00
	Residential New Streets (cost per linear foot)	2,770.00	$ 189.39	$524,610.30
	Additional Police Service (1 cop per 1000 people)	159	$150,000.00	$23,850.00
	Addition Fire Service (1 fireman per 1000 people)	159	$175,000.00	$27,825.00
	Total Assessed Value Year 10			**$1,201,520.37**

Phase 3	Public Necessity	Units for Cost Calculation	Cost per unit	Total Assessed Cost
Years 11-15	Curb Cuts (cost per curb cuts)	6	$ 405.00	$2,430.00
	Street Lights (cost per street light)	8	$ 50,000.00	$400,000.00
	Traffic Signals (cost per signal)	0	$ 400,000.00	$0.00
	Sidewalks (cost per linear foot)	1,166.00	$ 7.06	$8,231.96
	Marked Crosswalks (cost per crosswalk)	3	$ 770.00	$2,310.00
	Bike Boulevards (cost per mile)	0.22	$ 36,468.00	$7,894.49
	Bike Lanes (cost per mile)	0.00	$ 76,582.00	$0.00
	Residential New Streets (cost per linear foot)	1,221.00	$ 189.39	$231,245.19
	Additional Police Service (1 cop per 1000 people)	150	$150,000.00	$22,500.00
	Addition Fire Service (1 fireman per 1000 people)	150	$175,000.00	$26,250.00
	Total Assessed Value Year 15			**$700,861.64**

Phase 4	Public Necessity	Units for Cost Calculation	Cost per unit	Total Assessed Cost
Years 16-20	Curb Cuts (cost per curb cuts)	4	$ 405.00	$1,620.00
	Street Lights (cost per street light)	9	$ 50,000.00	$450,000.00
	Traffic Signals (cost per signal)	0	$ 400,000.00	$0.00
	Sidewalks (cost per linear foot)	667.00	$ 7.06	$4,709.02
	Marked Crosswalks (cost per crosswalk)	2	$ 770.00	$1,540.00
	Bike Boulevards (cost per mile)	0.12	$ 36,468.00	$4,420.36
	Bike Lanes (cost per mile)	0.00	$ 76,582.00	$0.00
	Residential New Streets (cost per linear foot)	640.00	$ 189.39	$121,209.60
	Additional Police Service (1 cop per 1000 people)	225	$150,000.00	$33,750.00
	Addition Fire Service (1 fireman per 1000 people)	225	$175,000.00	$39,375.00
	Total Assessed Value Year 20			**$656,623.98**

FISCAL ANALYSIS WORK TABLE — Infill Development

Village 2

					Rate per $1000 City General Fund	Annual Revenue General Fund	Rate per $1000 City Misc.	Annual Revenue Misc. City Funds	Rate per $1000 Port of Bellingham	Annual Revenue Port of Bellingham	Rate per $1000 School District	Annual Revenue School District	Rate per $1000 State Revenues	Annual Revenue WA State	Total Local Revenue - All Sources	Total COB General Fund Only Revenue
Phase 1	Land use type	Total sq ft	Assessed Value / sf	Total Assess Value												
Years 1-5	Commercial	586	119.00	$69,734.00	0.015610	$1,088.56	0.010684	$745.06	0.004109	$286.52	0.044008	$3,068.88	0.023067	$1,608.54		
	Commercial Mixed - 3 story	0	99.28	$0.00	0.015610	$0.00	0.010684	$0.00	0.004109	$0.00	0.044008	$0.00	0.002307	$0.00		
	Commercial Mixed - 2 story	0	104.21	$0.00	0.015610	$0.00	0.010684	$0.00	0.004109	$0.00	0.044008	$0.00	0.002307	$0.00		
	Residential Single Family	66,000.00	191.49	$12,638,340.00	0.015610	$197,286.43	0.010684	$135,032.80	0.004109	$51,928.16	0.044008	$556,193.13	0.002307	$29,152.55		
	Residential ADU	0	181.49	$0.00	0.015610	$0.00	0.010684	$0.00	0.004109	$0.00	0.044008	$0.00	0.002307	$0.00		
	Residential Multi	0	89.42	$0.00	0.015610	$0.00	0.010684	$0.00	0.004109	$0.00	0.044008	$0.00	0.002307	$0.00		
	Total Year 5			**$12,708,074.00**	0.015610	$198,374.99	0.010684	$135,777.87	0.004109	$52,214.68	0.044008	$559,262.02	0.002307	$29,313.41		
	Total Tax Revenue Generated to City Year 5														$945,629.56	**$198,374.99**

					Rate per $1000 City General Fund	Annual Revenue General Fund	Rate per $1000 City Misc.	Annual Revenue Misc. City Funds	Rate per $1000 Port of Bellingham	Annual Revenue Port of Bellingham	Rate per $1000 School District	Annual Revenue School District	Rate per $1000 State Revenues	Annual Revenue WA State	Total Local Revenue - All Sources	Total COB General Fund Only Revenue
Phase 2	Land use type	Total sq ft	Assessed Value / sf	Total Assess Value												
Years 6-10	Commercial	0	119.00	$0.00	0.015610	$0.00	0.010684	$0.00	0.004109	$0.00	0.044008	$0.00	0.002307	$0.00		
	Commercial Mixed - 3 story	0	99.28	$0.00	0.015610	$0.00	0.010684	$0.00	0.004109	$0.00	0.044008	$0.00	0.002307	$0.00		
	Commercial Mixed - 2 story	0	104.21	$0.00	0.015610	$0.00	0.010684	$0.00	0.004109	$0.00	0.044008	$0.00	0.002307	$0.00		
	Residential Single Family	0	191.49	$0.00	0.015610	$0.00	0.010684	$0.00	0.004109	$0.00	0.044008	$0.00	0.002307	$0.00		
	Residential ADU	0	181.49	$0.00	0.015610	$0.00	0.010684	$0.00	0.004109	$0.00	0.044008	$0.00	0.002307	$0.00		
	Residential Multi	62,244.40	89.42	$5,565,894.25	0.015610	$86,884.47	0.010684	$59,468.12	0.004109	$22,869.03	0.044008	$244,946.11	0.002307	$12,838.71		
	Total Year 10			**$18,273,968.25**	0.015610	$285,259.46	0.010684	$195,245.98	0.004109	$75,083.72	0.044008	$804,208.12	0.002307	$42,152.12		
	Total Tax Revenue Generated to City Year 10														$1,359,797.28	**$483,634.45**

					Rate per $1000 City General Fund	Annual Revenue General Fund	Rate per $1000 City Misc.	Annual Revenue Misc. City Funds	Rate per $1000 Port of Bellingham	Annual Revenue Port of Bellingham	Rate per $1000 School District	Annual Revenue School District	Rate per $1000 State Revenues	Annual Revenue WA State	Total Local Revenue - All Sources	Total COB General Fund Only Revenue
Phase 3	Land use type	Total sq ft	Assessed Value / sf	Total Assess Value												
Years 11-15	Commercial	2,400.00	119.00	$285,600.00	0.015610	$4,458.26	0.010684	$3,051.46	0.004109	$1,173.47	0.044008	$12,568.80	0.002307	$658.79		
	Commercial Mixed - 3 story	52,007.64	99.28	$5,163,318.50	0.015610	$80,600.20	0.010684	$55,166.85	0.004109	$21,214.94	0.044008	$227,229.39	0.002307	$11,910.10		
	Commercial Mixed - 2 story	22,400.00	104.21	$2,334,304.00	0.015610	$36,438.84	0.010684	$24,940.59	0.004109	$9,591.14	0.044008	$102,728.99	0.002307	$5,384.48		
	Residential Single Family	0	191.49	$0.00	0.015610	$0.00	0.010684	$0.00	0.004109	$0.00	0.044008	$0.00	0.002307	$0.00		
	Residential ADU	0	181.49	$0.00	0.015610	$0.00	0.010684	$0.00	0.004109	$0.00	0.044008	$0.00	0.002307	$0.00		
	Residential Multi	0	89.42	$0.00	0.015610	$0.00	0.010684	$0.00	0.004109	$0.00	0.044008	$0.00	0.002307	$0.00		
	Total Year 15			**$26,057,190.75**	0.015610	$406,756.76	0.010684	$278,404.88	0.004109	$107,063.26	0.044008	$1,146,735.30	0.002307	$60,105.49		
	Total Tax Revenue Generated to City Year 15														$1,938,960.20	**$890,391.21**

					Rate per $1000 City General Fund	Annual Revenue General Fund	Rate per $1000 City Misc.	Annual Revenue Misc. City Funds	Rate per $1000 Port of Bellingham	Annual Revenue Port of Bellingham	Rate per $1000 School District	Annual Revenue School District	Rate per $1000 State Revenues	Annual Revenue WA State	Total Local Revenue - All Sources	Total COB General Fund Only Revenue
Phase 4	Land use type	Total sq ft	Assessed Value / sf	Total Assess Value												
Years 16-20	Commercial	0	119.00	$0.00	0.015610	$0.00	0.010684	$0.00	0.004109	$0.00	0.044008	$0.00	0.002307	$0.00		
	Commercial Mixed - 3 story	0	99.28	$0.00	0.015610	$0.00	0.010684	$0.00	0.004109	$0.00	0.044008	$0.00	0.002307	$0.00		
	Commercial Mixed - 2 story	0	104.21	$0.00	0.015610	$0.00	0.010684	$0.00	0.004109	$0.00	0.044008	$0.00	0.002307	$0.00		
	Residential Single Family	0	191.49	$0.00	0.015610	$0.00	0.010684	$0.00	0.004109	$0.00	0.044008	$0.00	0.002307	$0.00		
	Residential ADU	0	181.49	$0.00	0.015610	$0.00	0.010684	$0.00	0.004109	$0.00	0.044008	$0.00	0.002307	$0.00		
	Residential Multi	93,842.52	89.42	$8,391,398.14	0.015610	$130,991.02	0.010684	$89,656.87	0.004109	$34,478.41	0.044008	$369,292.01	0.002307	$19,356.24		
	Total Year 20			**$34,448,588.89**	0.015610	$537,747.78	0.010684	$368,061.75	0.004109	$141,541.67	0.044008	$1,516,027.31	0.002307	$79,461.73		
	Total Tax Revenue Generated to City Year 20														$2,563,378.51	**$1,428,138.99**

Note 1: calculated based on average tax rate of 1 story commercial and either 2 or 3 stories Res MF
Note 2: in constant 2017 dollars
Note 3: resumes bonds and levies extended over 20 years
Note 4: total local revenue includes city, port, county, and school district revenues
Note 5: misc city revenue includes: city AFF HSG, fire pension, greenways, RDA, and affordable housing
Note 6: port of bellingham revenues include GO bond, General fund, and RDA
Note 7: school district fund includes bond, capital projects,and M&O fund
Note 8: county revenues include current expense, mental health, development disability, election reserve, and veterans relief funds

17. Urban Village Site Opportunity 3

Cedar View Urban Village

17.1 Introduction

The site for Urban Village 3 is a utility pole treatment site owned by the Oeser Cedar Company, who manufactures utility poles prior to 1983 when they were banned. The use of toxic chemicals in the treatment of wood poles resulted in contamination of soil and surface water at the Oeser site, prompting its declaration as a Superfund site by the Environmental Protection Agency in 1997. In 2009, the Oeser Company completed their cleanup efforts outlined in their agreement with the EPA and the City of Bellingham. Although the site is still active in the treatment and storage of wood utility poles, ecological restoration efforts as of the site's last Five-Year Review in 2016 are still ongoing.

The site was chosen based on its proximity to Marine Drive and Bennett Drive, two main roads running through the Alderwood neighborhood, and for its considerable size of 50 acres giving it great potential for multi-use, high density development. It is also close to Bellingham Technical College,making it an ideal site to provide housing and retail services supporting BTC students. The site's convenient location increases the likelihood of a successful urban village supported by residents of the Alderwood and Birchwood Neighborhoods and the City of Bellingham.

Aerial view of Urban Village 3

17.2 Vision

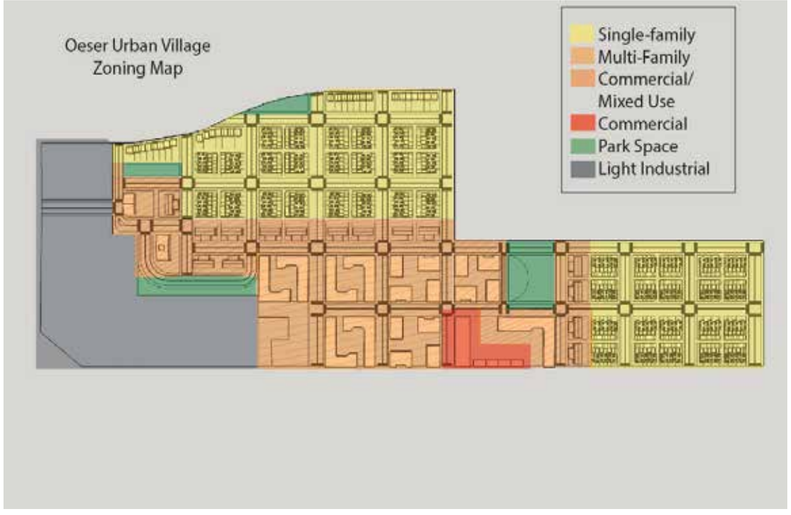
The vision for the Oeser Site Urban Village is to create an affordable, safe, and equitable community for all residents regardless of income.

The village is designed to provide a mix of residential and commercial buildings accessible to a range of incomes, and includes several parks and a public square to support community events. In mixed-use zones, commercial space should occupy the bottom floors, with residential units of varying prices on the second and third floors. Single-family residential zones offer rows of townhouses with backyards and alley-accessible parking, with native vegetation separating the house and sidewalk to improve privacy. Commercial space could include small retail shops, cafes, corner stores, specialty shops, and other convenient amenities. A grocery store on site could offer the village and greater Alderwood with fresh and healthy food, a much needed amenity for the Alderwood Neighborhood.

The site's layout incorporates a conventional grid system that encourages connectivity and walkability. The village would prioritize pedestrian access and safety by installing streetlights, sidewalks, and crosswalks throughout the village, with street parking to foster a sense of safety. Five parks dispersed around the village provide residents and visitors with open space for fresh air and recreation. A 400 square foot public plaza can serve as a community space for events such as a farmer's market.

17.3 Redevelopment Potential

The Oeser site has potential for the siting of a vibrant urban village that would accommodate almost 1,800 new residents. The following images are concept designs to demonstrate the redevelopment potential for the Oeser site.



Proposed zoning map for Urban Village #3.

17.4 Implementation Strategies

The zoning of the Oeser Urban Village site consists mainly of single-family zoning and commercial mixed-use. There is one area designated for commercial which has been set aside as a site for a grocery store, to serve the Alderwood and Birchwood neighborhoods. The area zoned light industrial zone is currently a hard development site and will likely change in the future.

Left: Main arterial streets should have 10 feet of sidewalks and parallel parking on either sides to better accommodate pedestrian usage.

Below: Mixed use commercial buildings should have first floor commercial space with two floors of multi-family residential space.

17.5 Development Guidelines

Single Family
Single family is defined as dwelling units that are on lots that range from 1000-5000 square feet in size. The requirements for single family dwelling units are as follows:

Site Requirements and Setbacks
- Lot size: Maximum 5,000 square feet
- The setback must be a minimum of 10 feet.

Bulk and Massing
- Maximum Floor Area Ratio (FAR): 0.4
- The height limit is 25 feet.

Open Space
- A minimum of 50% of the site must be open space or landscaping.

Parking
- There must be one parking stall for every 1000 square feet. Each parking stall must be 9’ x 18’.
- If an alley is present, residents will access their parking via the alleyway.
- Detached garages are allowed and must be attached to either a driveway or the alleyway.
- Any shared walls between garages or homes or driveways are allowed upon approval by the Planning Director.

Design Standards
- Buildings must follow the design guidelines referenced earlier in the report.

Multi Family
Multi family dwelling units are defined as a building containing at least five dwelling units.

Site Requirements and Setbacks
- Lot size: Maximum 5,000 square feet
- The setback must be a minimum of 10 feet.

Bulk and Massing
- Maximum Floor Area Ratio (FAR): 0.4
- The height limit is 25 feet.

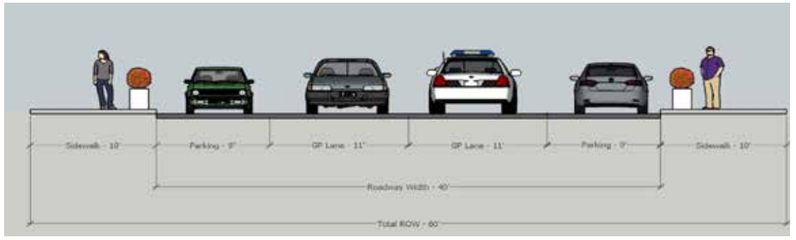
Open Space
- A minimum of 50% of the site must be open space or landscaping.

Parking
- Same guidelines as single family.

Design Standards
- Buildings must follow the design guidelines referenced earlier in the report.
- For more information on single family and multi-family dwelling units, Bellingham’s Infill Toolkit.

Mixed-Use Buildings
Mixed-use buildings consist mostly of first-floor commercial units and residential units on the upper floor. Commercial units facing the street with appropriate exterior design helps to create a walkable, pedestrian-friendly environment. Uses in the Commercial/Mixed-Use zone are exempt from following this guideline.

Building/Site Design
- Exteriors of commercial buildings shall contribute positively to the pedestrian environment with finishes such as:
- Windows facing the street and sidewalk
- Windows start at 2.5 feet above ground level
- “Welcoming” entryways and walls
- No blank walls
- Appropriate signage



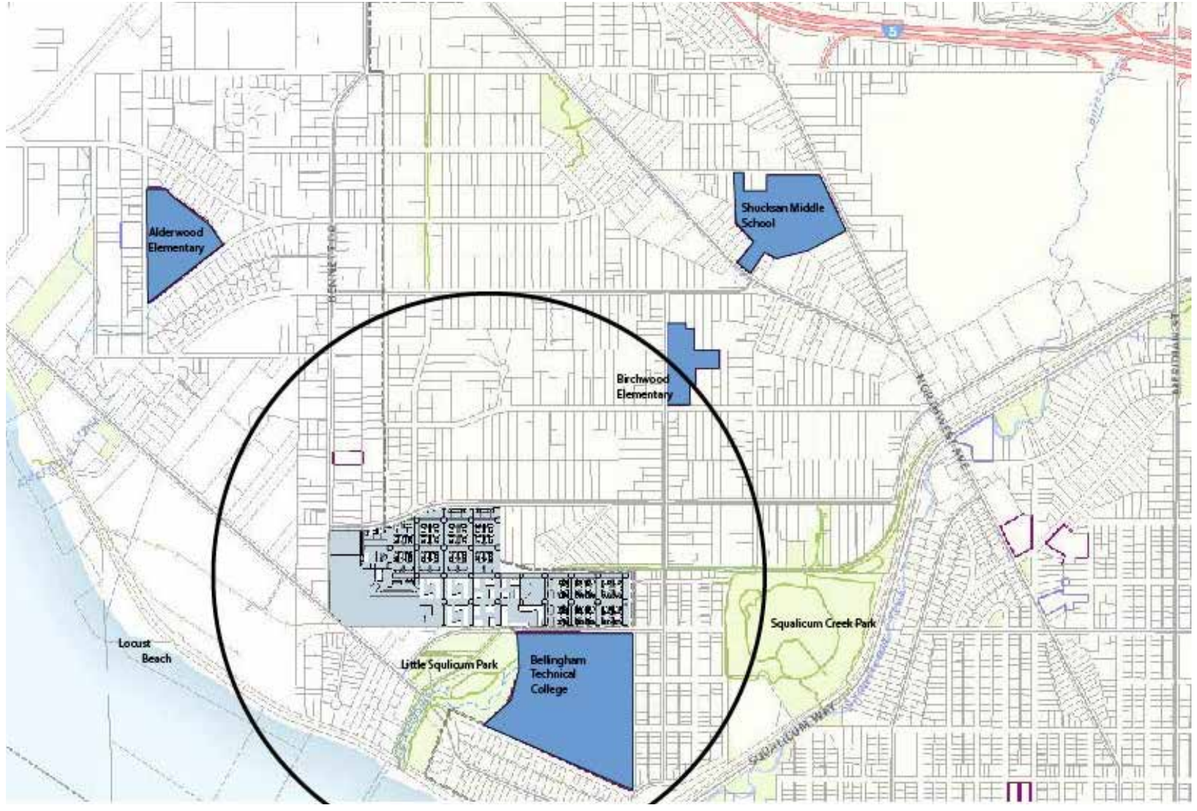
Density Table for Team 3 Urban Village

Building Type	Square Footage	Units	Population Projection
Single Family Total:	432,964	251	602.4
Multi Family Total:	493,217.00	493.2	1,183.68
Residential Total:	926,181.00	744.2	1,786.08
Commercial Total:	58,881.30		
Public Space Total:	51,194		

- Whenever possible, site design shall encourage pedestrian traffic
- Buildings sited along the sidewalk
- Parking lot placed behind buildings whenever possible.
- Buffers between cars and pedestrians should be used to protect pedestrians and to create a more human scale and break up large distances of paved lots
- When site design does not allow for buildings to be placed along sidewalks, use landscaping buffers to corners of the site
- Reduce the number of curb cuts to encourage pedestrian modes of transportation.

Parking
- All parking for commercial properties shall follow BMC 20.12.010 Section (B) for number of parking spots.
- All parking for commercial uses shall follow BMC 20.12.030 for Landscaping requirements for parking lots.

Setbacks
- No setbacks are required for commercial uses.
- Stand-alone commercial buildings shall be sited adjacent to the sidewalk to promote a pedestrian-friendly environment whenever possible



The 15-minute walk radius for the Urban Village encompasses the totality of the Urban Village within the Alderwood Neighborhood, parts of the Birchwood Neighborhood, Little Squalicum Park and almost reaches Bellingham Technical College. The commercial parts of this village would likely attract people from the Alderwood, Birchwood and Columbia neighborhoods, as these neighborhoods tend to lack these commercial services.

17.6 Parks, Plazas, and Neighborhood Connections

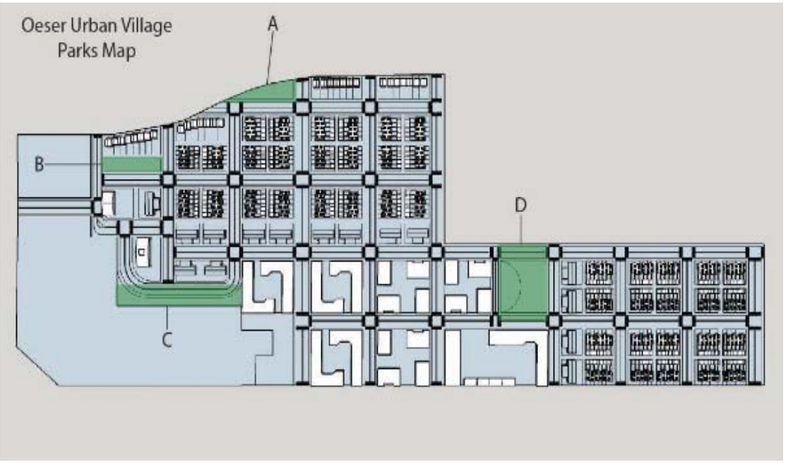
As shown in the image to the right, there are four different neighborhood parks within the urban village. These parks each serve to foster a greater sense of community.

Park A:
Park A is a triangular green space that can be utilized by the surrounding residents in the neighborhood. The area would include a children's play area. A play place would promote community interaction in the middle of a single-family neighborhood.

Park B:
Park B is a smaller, thin park that will buffer the single-family residence from the services building. The park will give a breath of fresh air to all around the area. The park can be utilized with a play area and some beautiful vegetation.

Park C:
Park C is used as a buffer area between multi-family zone and the soft industrial zone. The area will be lined with trees to ensure less disruption to the residents. The community can utilize it by reading under the trees and discovering Bellingham's extensive bird populations.

Park D:
Park D has a large green space with a brick laid area for more community interactions. The area has the potential to have a weekly farmer's market or neighborhood festivals. The open space invites lounging in the sun or throwing around a Frisbee.



17.7 Project Phasing

The Oeser Urban Village site would be developed in four specific phases over a twenty-year period. The phasing of the build-out would ensure that the right amount of commercial property is developed to support the single and multi-family residential housing that would be added in the neighborhood. The following is the methodology and reasoning behind each phase and the total revenue from taxes for each phase.

In phase one, single-family housing is proposed, especially in the outside edges of the development where the character of the surrounding neighborhoods is intended to be protected. Due to the need for more inventory in the Bellingham housing stock and the desire to protect the character of the existing neighborhoods, this site plan emphasizes single family development housing as the preferred land use.

Commercial and Mixed Use buildings are also planned for development during phase one to help ease the pressure on the rental market and meet housing needs of the city, as well as providing services to the current and future residents of both the Alderwood and the Birchwood neighborhoods. Research showed that focusing on residential development in areas where transportation infrastructure is already in place would create a strong base for the commercial development that is planned for the area at a lesser cost.

By incorporating existing streets into the implementation of phase one, access to commercial and residential development is possible at a lower cost to the city. The total local revenue produced at year five is $212,444 and the revenue to the City of Bellingham is $44,566.

Phase two works to further the growth of residential single-family and focuses substantial resources on multi-family housing. Multi-family housing is important for the growing city of Bellingham as it works to increase density and provide housing at a more affordable cost for more residents. Multi-family housing is especially important for affordable housing considerations. The local revenue generated from phase two is substantially higher than phase one, at $728,090. This allows for a greater allowance to affordable housing in this phase and future phases.

Additionally, phase two allows space for a public building, which could support the building of a fire station or satellite police station. Building a new fire station could also support the City's Regional Fire Authority agreement with WCFD #8 by providing adequate facilities to support the Marietta-Alderwood area. Providing emergency services at this location is important for supporting both the Alderwood neighborhood and surrounding neighborhoods as Bellingham's population grows.

Phase three of the urban village build-out substantially increases the amount of commercial and mixed residential-commercial development in the Alderwood neighborhood. With an increased population, there is more support for commercial activity. In addition, a grocery store would be built during this phase, fulfilling the overwhelming need by both the Alderwood and Birchwood neighborhoods, which are both currently considered to be food deserts. With the construction of more commercial and residential in this stage of development, the provision of new roads and sidewalk infrastructure is required. It is anticipated that the new revenue stream generated from the improvements would offset the cost of meeting infrastructure costs throughout the site in that the income from taxes on the previous two stages of development would offset the cost of expanding roadways and sidewalks throughout the site. These improvements will also help promote the completion of the site during phase four.

Phase four signifies the completion of build-out of the urban village. The last portion of the site would be built out as single-family residential, while the last mixed-use buildings and multi-family residential buildings would be completed. The final improvement to the urban village, consisting of a central park and public square, would complete the master site plan and provide a central meeting place for all the new residents in the urban village and the surrounding Alderwood and Birchwood neighborhood. The plan anticipates that after completion of the final phase, the urban village would absorb a large portion of Bellingham's growth and thrive as a piece of the Alderwood neighborhood and commercial center for years to come.

17.8 Estimated Costs

The costs of this urban village are anticipated to total $8,868,232, as shown in table two. This cost includes the cost of new streets, sidewalks, bike boulevards, crosswalks, and public emergency services. The most expensive phases of development are phase two and phase four. These phases include the most additions of new roads and sidewalks, driving up the cost of infrastructure. As population continues to grow within the urban village increased emergency services are required. The emergency service costs are accounted for in proportion to the increase in population. In phases two and three traffic signals will be placed to mitigate traffic as the population of the urban village grows.

Throughout the urban village, street lights will be placed during all phases of development, as this has proven to be an issue within the Alderwood neighborhood. Two public green spaces will be allocated in phase one and one neighborhood park will be sited in phase two. In the final phase, to tie together the vibrant urban village, a 400-square foot public plaza will be sited, and can accommodate public markets and community.

17.9 Projected Revenue

Over the next 20 years, the projected local revenues for this urban village will pay for the anticipated total cost of the urban village. Additionally, as an urban village of the City of Bellingham, revenues from the village will go into the City of Bellingham's general fund. As shown in table 2, revenues from the taxes in phase one will pay for the new roads that must be sited in later stages of this phase. As nearly all the development in phase one is sited on existing roads, revenues will be gathered before the most expensive roads and sidewalks must be constructed. These revenues will carry on funding the developments in phase two and subsequent development for the next fifteen to twenty years.

Phase	Curb Cut	Street Light	Traffic Signal	Sidewalk	Crosswalk	Bike Boulevard	Residential New Street	Emergency Services	Total Cost
1	60	20		4,978	30	0.3659	3,222	0.25	
2	62	24	1	7,609	31	0.9364	4,944	0.50	
3	44	10	1	5,701	22	0.3345	1,766	1.00	
4	70	22		6,975	35	0.7962	4,704	1.75	
Phase Cost									
1	$ 24,300	$ 1,000,000	$ -	$ 35,145	$ 23,100	$ 13,344	$ 610,215	$ 81,250	$ 1,787,353.23
2	$ 25,110	$ 1,200,000	$ 400,000	$ 53,720	$ 23,870	$ 34,147	$ 936,344	$ 162,500	$ 2,835,691.01
3	$ 17,820	$ 500,000	$ 400,000	$ 40,249	$ 16,940	$ 12,197	$ 334,463	$ 325,000	$ 1,646,669.24
4	$ 28,350	$ 1,100,000	$ -	$ 49,244	$ 26,950	$ 29,036	$ 796,196	$ 568,750	$ 2,598,525.32
								Total Urban Village Cost:	
								$	**8,868,238.81**

Urban Village Infrastructure & Services Projected Costs

17.10 Capital Improvement Plan

Market absorption

The projected number of new residents within the City of Bellingham is estimated at 1,896 people requiring 790 new housing units within the City to support this influx of residents. In 2016, there were 532 new housing units created which is far less than the needs of the City of Bellingham. As a result, "Bellingham's median price for a single-family home climbed from $310,000 in March 2016 to $425,100 in March 2017, an increase of 37.1%" (WWU Planning Studio & City of Bellingham, 2017). The placement of an urban village within the Alderwood neighborhood, which is considered a primary urban growth area, would provide increased housing stock to accommodate the needs of the City. In total, this site would accommodate 742 units with 1,780 new residents, as demonstrated in table 1. This urban village development would be able to absorb 4.69% of the city's population over 20 years according to the WWU Planning Studio's Absorption Report (WWU Planning Studio & City of Bellingham, 2017). The Alderwood neighborhood is in a prime position to support the City of Bellingham's growth needs, especially through the utilization of a highly dense, urban village.

FISCAL ANALYSIS WORK TABLE — **Infill Development**

Village 3

			Assessed Value		Rate per $1000		Rate per $1000		Rate per $1000		Rate per $1000		Rate per $1000		Total Local Revenue - All Sources	Total COB General Fund Only Revenue
Phase 1	**Land use type**	**Total sq ft**	**/ sf**	**Total Assess Value**	City General Fund	General Fund		Misc. City Funds	Port of Bellingham	Port of Bellingham	School District	School District	State Revenues	WA State		
Years 1-5	Commercial		119.00	$0.00	0.015610	$0.00	0.010684	$0.00	0.004109	$0.00	0.044008	$0.00	0.023067	$0.00		
	Commercial Mixed - 3 story	56856	99.28	$5,644,663.68	0.015610	$88,114.07	0.010684	$60,309.72	0.004109	$23,192.68	0.044008	$248,412.62	0.023067	$130,204.09		
	Commercial Mixed - 2 story		104.21	$0.00	0.015610	$0.00	0.010684	$0.00	0.004109	$0.00	0.044008	$0.00	0.023067	$0.00		
	Residential Single Family	119615.5	191.49	$22,905,172.10	0.015610	$357,553.26	0.010684	$244,727.52	0.004109	$94,112.31	0.044008	$1,008,020.00	0.023067	$528,348.06		
	Residential ADU		181.49	$0.00	0.015610	$0.00	0.010684	$0.00	0.004109	$0.00	0.044008	$0.00	0.023067	$0.00		
	Residential Multi		89.42	$0.00	0.015610	$0.00	0.010684	$0.00	0.004109	$0.00	0.044008	$0.00	0.023067	$0.00		
	Total Year 5			**$28,549,835.78**	0.015610	$445,667.33	0.010684	$305,037.24	0.004109	$117,304.99	0.044008	$1,256,432.62	0.023067	$658,552.15		
	Total Tax Revenue Generated to City Year 5														$2,124,442.19	**$445,667.33**

			Assessed Value												Total Local Revenue - All Sources	Total COB General Fund Only Revenue
Phase 2	**Land use type**	**Total sq ft**	**/ sf**	**Total Assess Value**												
Years 6-10	Commercial		119.00	$0.00	0.015610	$0.00	0.010684	$0.00	0.004109	$0.00	0.044008	$0.00	0.023067	$0.00		
	Commercial Mixed - 3 story		99.28	$0.00	0.015610	$0.00	0.010684	$0.00	0.004109	$0.00	0.044008	$0.00	0.023067	$0.00		
	Commercial Mixed - 2 story		104.21	$0.00	0.015610	$0.00	0.010684	$0.00	0.004109	$0.00	0.044008	$0.00	0.023067	$0.00		
	Residential Single Family	185868	191.49	$35,591,863.32	0.015610	$555,594.47	0.010684	$380,276.92	0.004109	$146,239.14	0.044008	$1,566,340.99	0.023067	$820,988.90		
	Residential ADU		181.49	$0.00	0.015610	$0.00	0.010684	$0.00	0.004109	$0.00	0.044008	$0.00	0.023067	$0.00		
	Residential Multi	59148	89.42	$5,289,014.16	0.015610	$82,562.33	0.010684	$56,509.83	0.004109	$21,731.40	0.044008	$232,761.06	0.023067	$122,000.41		
	Total Year 10			**$69,430,713.26**	0.015610	$1,083,824.13	0.010684	$741,823.99	0.004109	$285,275.53	0.044008	$3,055,534.67	0.023067	$1,601,541.46		
	Total Tax Revenue Generated to City Year 10														$5,166,458.31	**$1,529,491.46**

			Assessed Value												Total Local Revenue - All Sources	Total COB General Fund Only Revenue
Phase 3	**Land use type**	**Total sq ft**	**/ sf**	**Total Assess Value**												
Years 11-15	Commercial	11808	119.00	$1,405,152.00	0.015610	$21,934.64	0.010684	$15,013.18	0.004109	$5,773.46	0.044008	$61,838.49	0.023067	$32,412.30		
	Commercial Mixed - 3 story	113712	99.28	$11,289,327.36	0.015610	$176,228.14	0.010684	$120,619.44	0.004109	$46,385.36	0.044008	$496,825.25	0.023067	$260,408.18		
	Commercial Mixed - 2 story		104.21	$0.00	0.015610	$0.00	0.010684	$0.00	0.004109	$0.00	0.044008	$0.00	0.023067	$0.00		
	Residential Single Family	86676	191.49	$16,597,587.24	0.015610	$259,090.89	0.010684	$177,334.90	0.004109	$68,195.83	0.044008	$730,433.27	0.023067	$382,852.53		
	Residential ADU		181.49	$0.00	0.015610	$0.00	0.010684	$0.00	0.004109	$0.00	0.044008	$0.00	0.023067	$0.00		
	Residential Multi	11200	89.42	$1,001,504.00	0.015610	$15,633.63	0.010684	$10,700.45	0.004109	$4,114.96	0.044008	$44,074.59	0.023067	$23,101.45		
	Total Year 15			**$99,724,283.86**	0.015610	$1,556,711.43	0.010684	$1,065,491.94	0.004109	$409,745.14	0.044008	$4,388,706.27	0.023067	$2,300,315.92		
	Total Tax Revenue Generated to City Year 15														$7,420,654.79	**$3,086,202.89**

			Assessed Value												Total Local Revenue - All Sources	Total COB General Fund Only Revenue
Phase 4	**Land use type**	**Total sq ft**	**/ sf**	**Total Assess Value**												
Years 16-20	Commercial	4000	119.00	$476,000.00	0.015610	$7,430.43	0.010684	$5,085.76	0.004109	$1,955.78	0.044008	$20,948.00	0.023067	$10,979.78		
	Commercial Mixed - 3 story	54408	99.28	$5,401,626.24	0.015610	$84,320.22	0.010684	$57,713.02	0.004109	$22,194.09	0.044008	$237,716.93	0.023067	$124,598.01		
	Commercial Mixed - 2 story		104.21	$0.00	0.015610	$0.00	0.010684	$0.00	0.004109	$0.00	0.044008	$0.00	0.023067	$0.00		
	Residential Single Family	173352	191.49	$33,195,174.48	0.015610	$518,181.79	0.010684	$354,669.79	0.004109	$136,391.67	0.044008	$1,460,866.55	0.023067	$765,705.06		
	Residential ADU		181.49	$0.00	0.015610	$0.00	0.010684	$0.00	0.004109	$0.00	0.044008	$0.00	0.023067	$0.00		
	Residential Multi	22400	89.42	$2,003,008.00	0.015610	$31,267.26	0.010684	$21,400.89	0.004109	$8,229.92	0.044008	$88,149.18	0.023067	$46,202.90		
	Total Year 20			**$140,800,092.58**	0.015610	$2,197,911.13	0.010684	$1,504,361.41	0.004109	$578,516.60	0.044008	$6,196,386.93	0.023067	$3,247,801.66		
	Total Tax Revenue Generated to City Year 20														$10,477,176.08	**$5,284,114.02**

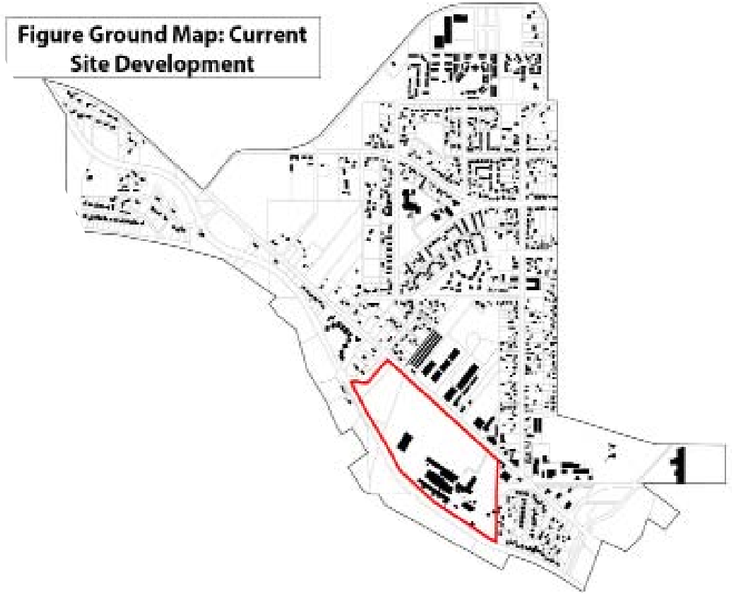
Note 1: calculated based on average tax rate of 1 story commercial and either 2 or 3 stories Res MF
Note 2: in constant 2017 dollars
Note 3: resumes bonds and levies extended over 20 years
Note 4: total local revenue includes city, port, county, and school district revenues
Note 5: misc city revenue includes: city AFF HSG, fire pension, greenways, RDA, and affordable housing
Note 6: port of bellingham revenues include GO bond, General fund, and RDA
Note 7: school district fund includes bond, capital projects,and M&O fund
Note 8: county revenues include current expense, mental health, development disability, election reserve, and veterans relief funds

18. Urban Village Site Opportunity 4

Lehigh Cove Urban Village

18.1 Identified needs

- Grocery
- Farmer's market
- Community garden
- Mixed-use development
- Low-income housing
- Single-family housing
- Multi-family housing
- Sidewalks
- Urban trail
- Street art
- Bike racks
- Bus stops
- Childcare
- Restaurants
- Park
- Plaza
- Parking awnings
- Sitting area



18.2 Site Focus and Boundaries

Lehigh Cement Northwest

Mostly abandoned, the 50 acre industial cement site is space that can be developed without displacing Alderwood residents or businesses that residents rely on. High infill potential also supports development of the space. Located alongside the Bellingham Bay waterfront, beach access and a wide viewshed are site assets. Active railways running parallel to the cement plant and sea level rise are considered in the 20 year outlook for urban village development.

18.3 Site Development

The heart of the commercial development of Urban Village Site 4 will feature four mixed use buildings with commercial on the bottom and residential on top surrounding two commercial buildings. Ample parking is provided on the outside of the Urban Village which is a pedestrian zone only. Nearby is a community center, recommended for use as a small library and postal service office, followed by a set of row homes. There are thirteen blocks arranged in grid formation; development focused on a grid system for the development because of the design's long history of success in cities around the world.

The grid design promotes visibility and efficiency of walkability and traffic flow. Along the main road of the development there is a dedicated bike lane in the center with natural buffers on each side. Each block has a mix of multi-family housing and single family homes. On the southernmost point is a small triangular plot with row homes. This area would have been too small for the blocks described earlier.

Along the waterfront, a public park acts as a sound buffer from the train tracks that follow the coastline. Inland of the park is a large space, suggested for use as a community garden. Continuing along the northwest to the ends of the site plan are rowhomes and townhouses. Finally, a broken row of apartments line Marine Drive in order to create a sound barrier but also allow for local access in and out of the development.

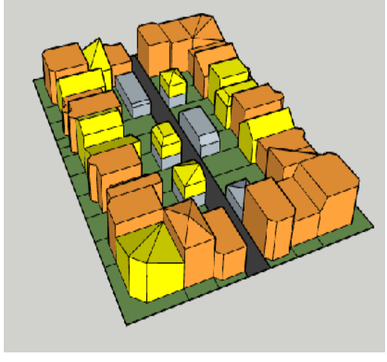
Right: Aerial view of the site development. Type of development is represented by the colors of buildings: public use (blue), single-family homes (orange), multi-family housing (yellow), park (green), commercial (red), and Additional Housing Units (light blue).

Current site development from aerial perspective.

18.4 Development Details

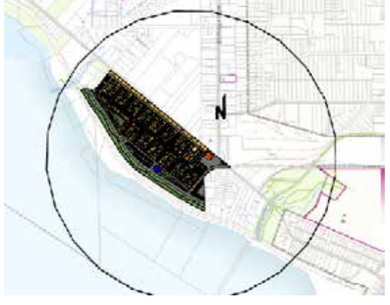
About 1/3 of the units are comprised of single family residential units while the rest are multifamily units. Alley access allows onsite parking behind the residences. ADUs can also be seen behind these residences. The block dimensions are 300' x 220', the size of a typical city block.

Designed roadways include bike lanes buffered from automobile traffic by two tree-lined green spaces. These bike boulevards run along the entire main road established within the grid system.



Land Use	Square Feet	Units	Population
Single Family	404,973	231	485
Multi-Family	1,144,435	1,144	2,403
Total Residential	1,549,408	1,375	2,888
Commercial Retail/Services	58,655	-	-
Public Space	318,476	-	-

This table shows building square footage and associated number of units and population in the Alderwood Neighborhood from the proposed land use of site plan 4.



This map shows a 15-minute walking radius to the center of our urban village. Half a mile was used to determine this radius. This urban village would be in walking distance to many Alderwood residents as well as some Birchwood residents and BTC students.

18.5 Urban Development Guidelines

This report details the proposal for a new urban village within the Alderwood neighborhood. The 50 acre village located on Marine Drive has waterfront property and beautiful views of Bellingham Bay. The purpose of developing this village is to increase the density of the Alderwood neighborhood and to create a sense of place and community in the area. This village is projected to increase the population of the area by 3,300 people, and will include multi-family and single family residences, public spaces, and a commercial center.

Developing this site is an improvement for the neighborhood and the city. The land where this plan is proposed is currently the former Lehigh Cement plant. Lehigh Cement still owns this property, but the plant has not been in full use for years. This large piece of land could serve the city a greater purpose as an urban village than as an industrial site. The village would provide nearly $4 million a year in tax revenue to the city and create a sense of community and enjoyment for those who live in the village and the surrounding neighborhoods.

Vision

The project's vision redevelops the current Lehigh Cement Plant into a burgeoning urban village. The vast size of the lot allows for a number of new residences and businesses. According to the project's projections, the design will bring in as many as 3,300 people and over 1,300 new residences over the course of 20 years. Bellingham has a very expansive and beautiful coastline and it is the project's goal to have this space open for the public to use. A park runs along the water allowing all to see Bellingham Bay. Because this area is in a food desert, the community farm allows locals easy access to fresh, healthy, and affordable produce. The design is a simple grid formation for ease of navigability and it also promotes alternative modes of transportation.

View of proposed urban village commercial core area.

Redevelopment Potential

There is high redevelopment potential for the cement plant site because it is a 50 acre blank slate that can be developed into the ideal village. There is ample room for a public space and a great deal of residential use.

Residential Transition 1&2 (RT):
Residential Transition area one creates a buffer between the village and the outside neighborhood. Residential transition area two consists of medium density townhomes which help create a buffer between the existing houses to the immediate east. Both zones create a separation between the new village and the surrounding community.

- Building height: 30'
- Floor Area Ratio (FAR): 0.7
- Setbacks
- Front: 5'
- Flanking: None
- Minimum lot size: 20' X 70'
- Parking requirement: 2 spots per 1,000 square feet of housing

Residential Transition 3 (RT):
Residential Transition area three consists of variable housing types all near the waterfront. These residences are generally lower density than houses in the residential core and also have lower building height restrictions to help preserve views of the bay.

- Building height: 20'
- Floor Area Ratio (FAR): 0.6
- Setbacks
- Front: 10'
- Flanking: None
- Minimum lot size: 25' X 55'
- Parking requirement: 1 spot per unit

Commercial Transition (CT): The Commercial Transition area brings both motorists and public transit riders in from roadways into the urban village's primary parking lot and transportation center. It functions as the main entrance to the urban village for visitors interested in its commercial amenities.

- Building height: 15'
- Floor Area Ratio (FAR): 0.3
- Setbacks
- Front: 15'
- Flanking: 5'
- Minimum lot size: 60' X 50'
- Parking requirement: Minimum of 100 spaces within the transition area

The urban village is comprised of six mixed use buildings. Apartments located on upper floors while businesses fill lower levels. Angled parking can be seen to the east of the village. Most of the streets also feature parallel parking, which helps the development meet parking standards.

Commercial Core (C):
The Commercial Core is the central location for retail, employment, and place where residents can have face to face interaction with their neighbors. The main center will be pedestrian centric, but the outside of the core will have both street and lot parking.

- Building height: 25’
- Floor Area Ratio (FAR): 0.8
- Setbacks: 8’ all sides
- Minimum lot size: 50’ X 150’
- Parking requirement: Minimum of 100 spaces within the core area

Residential Core (RC):
The Residential Core is a mix of multi- and single family housing. This area provides housing for people from diverse backgrounds and incomes.

- Building height: 35’
- Floor Area Ratio (FAR): 0.7
- Setbacks
- Front: 10’
- Flanking: None
- Minimum lot size: 45’ x 25’
- Parking requirement: 1 spot per 1,000 square feet of housing

Community Garden Space :
The Community Garden Space creates a sense of community the neighborhood, as well as providing food security for the neighborhood.

Park:
The park is designed to give access to the waterfront for every resident and to create a safe place for anyone to enjoy the outdoors.

Public Spaces

There is currently a lack of public space in the Alderwood Neighborhood. There are no parks, and the only gathering place for public events is the local elementary school. Per the 2016 Bellingham Comprehensive Plan, everyone living within the city should live within ½ mile to a public park. The proposed development will include a large waterfront park that will run the length of the village that will keep the area in compliance with the park requirement. The plan also includes a public plaza, a large community garden, and a public building that will create more community and face to face interaction for the residents of this village.

Capital Improvement Plan

Implementation of the urban village has 4 phases of development, each in 5 year increments. The following information shows the phasing plan, costs of infrastructure, and projected tax revenue for these four phases. The following table shows the cost of transportation infrastructure over the course of 20 years.

	5 Years	10 Years	15 Years	20 Years	**Totals**
Curb Cuts	$10,530	$9,720	$8,505	$6,480	$35,235
Street Lights	$1,600,000	$1,400,000	$1,200,000	$1,000,000	$5,200,000
Traffic Signals	-	$400,000	-	$400,000	$400,000
Crosswalks	$12,320	$13,860	$4,620	$6,930	$37,730
Sidewalks	$48,559	$45,892	$28,595	$27,125	$150,171
Bike Boulevards	-	-	$54,702	-	$54,702
Bike Lane	$38,291	$28,718	$57,436	$28,718	$153,164
Residential New Streets	$891,458	$865,133	$1,051,807	$424,051	$3,232,449
Police and Fire Services	$325,000	$325,000	-	$325,000	$975,000
Totals	$2,926,158	$3,088,322	$2,405,665	$2,218,304	$10,638,451

18.6 Fiscal Analysis

FISCAL ANALYSIS WORK TABLE

Village 4

Infill Development

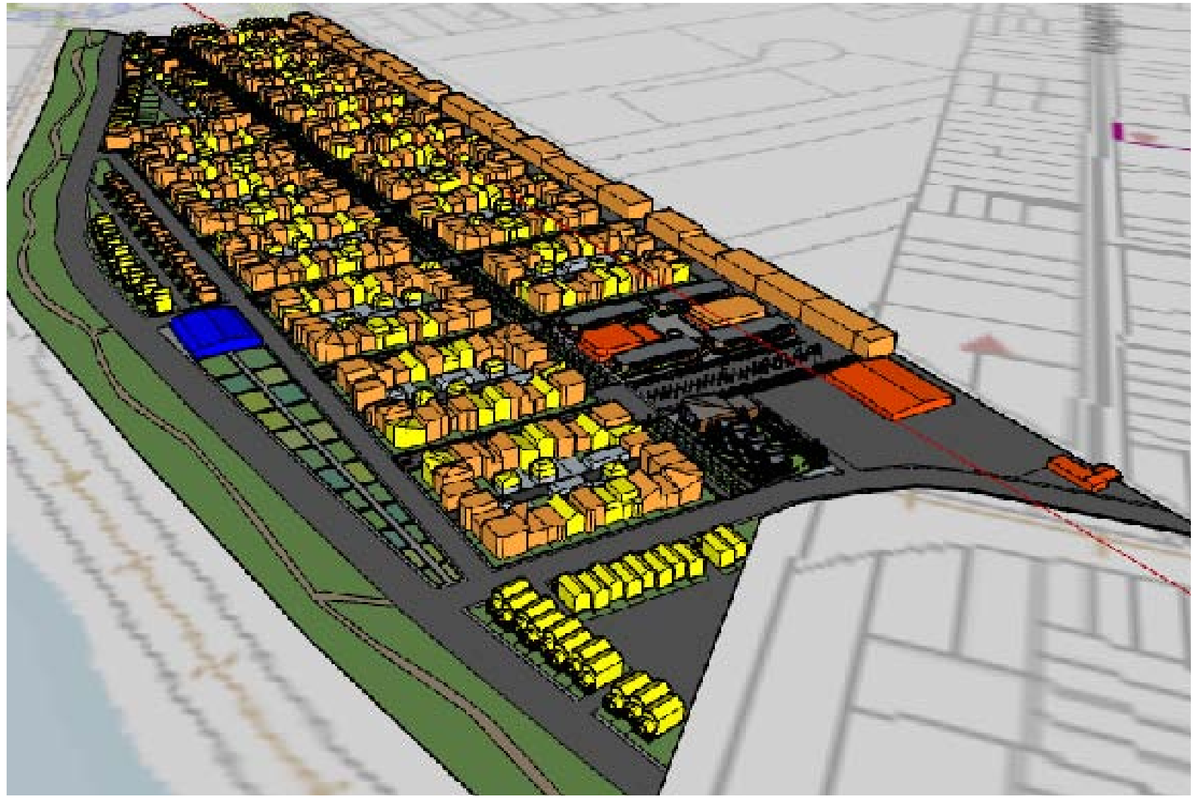
Phase	Land use type	Total sq ft	Assessed Value / sf	Total Assess Value	Rate per $1000 City General Fund	Annual Revenue General Fund	Rate per $1000 City Misc.	Annual Revenue Misc. City Funds	Rate per $1000 Port of Bellingham	Annual Revenue Port of Bellingham	Rate per $1000 School District	Annual Revenue School District	Rate per $1000 State Revenues	Annual Revenue WA State	Total Local Revenue - All Sources	Total COB General Fund Only Revenue
Years 1-5	Commercial	15521	119.00	$1,846,999.00	0.015610	$28,831.94	0.010684	$19,734.04	0.004109	$7,588.91	0.044008	$81,283.47	0.023067	$42,604.28		
	Commercial Mixed - 3 story		99.28	$0.00	0.015610	$0.00	0.010684	$0.00	0.004109	$0.00	0.044401	$0.00	0.023067	$0.00		
	Commercial Mixed - 2 story	67900	104.21	$7,075,859.00	0.015610	$110,455.25	0.010684	$75,601.15	0.004109	$29,073.15	0.044008	$311,397.24	0.023067	$163,217.13		
	Residential Single Family	109268	191.49	$20,923,729.32	0.015610	$326,622.64	0.010684	$223,557.03	0.004109	$85,971.00	0.044008	$920,819.87	0.023067	$482,642.60		
	Residential ADU	6000	181.49	$1,088,940.00	0.015610	$16,998.52	0.010684	$11,634.65	0.004109	$4,474.21	0.044008	$47,922.51	0.023067	$25,118.32		
	Residential Multi	282032	89.42	$25,219,301.44	0.015610	$393,677.18	0.010684	$269,452.55	0.004109	$103,620.56	0.044008	$1,109,861.13	0.023067	$581,727.52		
	Total Year 5			**$56,154,828.76**	0.015610	$876,585.52	0.010684	$599,979.42	0.004109	$230,727.84	0.044008	$2,471,284.22	0.023067	$1,295,309.85		
	Total Tax Revenue Generated to City Year 5														$4,178,577.00	$876,585.52

Phase	Land use type	Total sq ft	Assessed Value / sf	Total Assess Value	Rate per $1000 City General Fund	Annual Revenue General Fund	Rate per $1000 City Misc.	Annual Revenue Misc. City Funds	Rate per $1000 Port of Bellingham	Annual Revenue Port of Bellingham	Rate per $1000 School District	Annual Revenue School District	Rate per $1000 State Revenues	Annual Revenue WA State	Total Local Revenue - All Sources	Total COB General Fund Only Revenue
Years 6-10	Commercial		119.00	$0.00	0.015610	$0.00	0.010684	$0.00	0.004109	$0.00	0.044008	$0.00	0.023067	$0.00		
	Commercial Mixed - 3 story		99.28	$0.00	0.015610	$0.00	0.010684	$0.00	0.004109	$0.00	0.044008	$0.00	0.023067	$0.00		
	Commercial Mixed - 2 story		104.21	$0.00	0.015610	$0.00	0.010684	$0.00	0.004109	$0.00	0.044008	$0.00	0.023067	$0.00		
	Residential Single Family	153402	191.49	$29,374,948.98	0.015610	$458,547.48	0.010684	$313,853.06	0.004109	$120,695.20	0.044008	$1,292,744.53	0.023067	$677,584.84		
	Residential ADU	9000	181.49	$1,633,410.00	0.015610	$25,497.78	0.010684	$17,451.97	0.004109	$6,711.32	0.044008	$71,883.76	0.023067	$37,677.47		
	Residential Multi	402798	89.42	$36,018,197.16	0.015610	$562,249.60	0.010684	$384,832.03	0.004109	$147,990.85	0.044008	$1,585,103.26	0.023067	$830,823.04		
	Total Year 10			**$123,181,384.90**	0.015610	$1,922,880.39	0.010684	$1,316,116.48	0.004109	$506,125.21	0.044008	$5,421,015.78	0.023067	$2,841,395.20		
	Total Tax Revenue Generated to City Year 10														$9,166,137.86	$2,799,465.91

Phase	Land use type	Total sq ft	Assessed Value / sf	Total Assess Value	Rate per $1000 City General Fund	Annual Revenue General Fund	Rate per $1000 City Misc.	Annual Revenue Misc. City Funds	Rate per $1000 Port of Bellingham	Annual Revenue Port of Bellingham	Rate per $1000 School District	Annual Revenue School District	Rate per $1000 State Revenues	Annual Revenue WA State	Total Local Revenue - All Sources	Total COB General Fund Only Revenue
Years 11-15	Commercial		119.00	$0.00	0.015610	$0.00	0.010684	$0.00	0.004109	$0.00	0.044008	$0.00	0.023067	$0.00		
	Commercial Mixed - 3 story		99.28	$0.00	0.015610	$0.00	0.010684	$0.00	0.004109	$0.00	0.044008	$0.00	0.023067	$0.00		
	Commercial Mixed - 2 story		104.21	$0.00	0.015610	$0.00	0.010684	$0.00	0.004109	$0.00	0.044008	$0.00	0.023067	$0.00		
	Residential Single Family	93861	191.49	$17,973,442.89	0.015610	$280,568.21	0.010684	$192,035.06	0.004109	$73,848.92	0.044008	$790,982.48	0.023067	$414,589.06		
	Residential ADU	3500	181.49	$635,215.00	0.015610	$9,915.80	0.010684	$6,786.88	0.004109	$2,609.96	0.044008	$27,954.80	0.023067	$14,652.35		
	Residential Multi	107970	89.42	$9,654,677.40	0.015610	$150,711.00	0.010684	$103,154.22	0.004109	$39,668.95	0.044008	$424,886.91	0.023067	$222,702.11		
	Total Year 15			**$151,444,720.19**	0.015610	$2,364,075.40	0.010684	$1,618,092.64	0.004109	$622,253.04	0.044008	$6,664,839.98	0.023067	$3,493,338.71		
	Total Tax Revenue Generated to City Year 15														$11,269,261.05	$5,163,541.32

Phase	Land use type	Total sq ft	Assessed Value / sf	Total Assess Value	Rate per $1000 City General Fund	Annual Revenue General Fund	Rate per $1000 City Misc.	Annual Revenue Misc. City Funds	Rate per $1000 Port of Bellingham	Annual Revenue Port of Bellingham	Rate per $1000 School District	Annual Revenue School District	Rate per $1000 State Revenues	Annual Revenue WA State	Total Local Revenue - All Sources	Total COB General Fund Only Revenue
Years 16-20	Commercial		119.00	$0.00	0.015610	$0.00	0.010684	$0.00	0.004109	$0.00	0.044008	$0.00	0.023067	$0.00		
	Commercial Mixed - 3 story		99.28	$0.00	0.015610	$0.00	0.010684	$0.00	0.004109	$0.00	0.044008	$0.00	0.023067	$0.00		
	Commercial Mixed - 2 story		104.21	$0.00	0.015610	$0.00	0.010684	$0.00	0.004109	$0.00	0.044008	$0.00	0.023067	$0.00		
	Residential Single Family	96300	191.49	$18,440,487.00	0.015610	$287,858.84	0.010684	$197,025.13	0.004109	$75,767.90	0.044008	$811,536.35	0.023067	$425,362.25		
	Residential ADU	4500	181.49	$816,705.00	0.015610	$12,748.89	0.010684	$8,725.98	0.004109	$3,355.66	0.044008	$35,941.88	0.023067	$18,838.74		
	Residential Multi	263075	89.42	$23,524,166.50	0.015610	$367,215.86	0.010684	$251,341.09	0.004109	$96,655.62	0.044008	$1,035,260.95	0.023067	$542,626.26		
	Total Year 20			**$194,226,078.69**	0.015610	$3,031,899.00	0.010684	$2,075,184.84	0.004109	$798,032.23	0.044008	$8,547,579.16	0.023067	$4,480,165.95		
	Total Tax Revenue Generated to City Year 20														$14,452,695.22	$8,195,440.32

Note 1: calculated based on average tax rate of 1 story commercial and either 2 or 3 stories Res MF
Note 2: in constant 2017 dollars
Note 3: resumes bonds and levies extended over 20 years
Note 4: total local revenue includes city, port, county, and school district revenues
Note 5: misc city revenue includes: city AFF HSG, fire pension, greenways, RDA, and affordable housing
Note 6: port of bellingham revenues include GO bond, General fund, and RDA
Note 7: school district fund includes bond, capital projects,and M&O fund
Note 8: county revenues include current expense, mental health, development disability, election reserve, and veterans relief funds



Perspective vie of site 4 development plan

19. Overall Summary of Fiscal Revenue By Development Phases

Consolidated Fiscal Impact over 20 years

Phases 1-4: Years 1-20	Total Sq St	Total Assess Value (1)	Annual Revenue COB General Fund (2)	Annual Revenue Misc. COB Funds	Annual Revenue Port of Bellingham	Annual Revenue School District	Annual Revenue WA State	Total Local Annual Revenue - All Sources at 20 year buidout
Neighborhood	1,128,750	$84,641,025	$3,303,149	$904,337	$347,771	$3,724,916	$1,952,394	$6,298,284
Village 1	261,046	$27,639,961	$1,190,423	$295,316	$113,567	$1,216,391	$637,564	$2,056,737
Village 2	299,481	$34,448,589	$1,428,139	$368,062	$141,542	$1,516,027	$794,617	$2,563,379
Village 3	876,644	$140,800,093	$5,284,114	$1,504,361	$578,517	$6,196,387	$3,247,802	$10,477,176
Village 4	1,615,127	$194,226,079	$8,195,440	$2,075,185	$798,032	$8,547,579	$4,480,166	$14,452,695
Total All Phases, All Infill Areas	**4,181,047**	**$481,755,747**	**$19,401,265**	**$5,147,261**	**$1,979,428**	**$21,201,300**	**$11,112,543**	**$35,848,270**

Notes:
1. No adjustment made to assessed values over 20 year period
2. Tax revenues reflect only revenues accrusing to City General Fund

Cumulative Fiscal Revenue Forecast over 20 Years

Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
$14,221,468	$28,442,937	$42,664,405	$56,885,874	$71,107,342	$91,137,597	$182,275,194	$273,412,792	$364,550,389	$455,687,986
Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Year 18	Year 19	Year 20
$482,795,184	$965,590,367	$1,367,063,958	$1,822,751,944	$2,413,975,919	$2,449,824,189	$4,899,648,378	$7,349,472,567	$9,799,296,756	$12,249,120,944

The studio project calculated the estimated long term tax revenue generaged from the five different growth scenarios for the Alderwood Neighborhood. These growth areas include neighborhood infill as well as the addition of up to 4 new urban villages.

The table above depicts the twenty-year projected tax revenue generation for the neighborhood as well as a cumulative fiscal projection, showing cumulative revenues to City, School District, Port, and other miscellaneous tax funds, assuming full development at year 20 for each of the growth scenarios contained in this study.

The studio has identified several tax revenue possibilities and encourages the City of Bellingham to consider implementing more than one of the urban village concepts. This additional tax revenue can help create an economically sustainable neighborhood that will help ensure the health, safety, and welfare of the Alderwood neighborhood for years to come.

20. Procedures for Annexation

What is annexation?

Annexation is a process where an unincorporated area or neighborhood becomes part of the city limits. These spaces must already be part of the Urban Growth Area (UGA) and must border the city's existing boundaries.

The map to the right shows the areas that are designated as Bellingham's UGA. Bellingham has identified Alderwood as an area that could be annexed into the city.

What are the benefits to annexation?

Some of the benefits for the residents include:

- Quicker response time from police, fire, and emergency services
- Decrease in crime
- New infrastructure such as streetlights, sidewalks, traffic lights, crosswalks, or bike lanes
- Better access to the city's sewer and water utilities
- More parklands and trail systems
- Increased land values
- Neighborhood and City Council representation
- City libraries and cultural amenities
- Urban land use planning
- Ability to participate and vote in city elections

Some of the benefits for the city include:

- Greater infill capacity allowing the city to reach the goals set out in the Growth Management Act
- Tax revenue generated from new developments in the neighborhood
- Decrease in crime
- Ability to better manage urban growth and development in Bellingham's surrounding areas consistent with city land use policies

How is annexation initiated?

The first step is for residents in the Alderwood community to form a neighborhood organization or committee to begin discussions with the city on the benefits of annexation. Then, residents should continue meeting property owners, business owners, and other residents to discuss annexation and what that would mean for the community. The WWU planning study should be reviewed by the community as a basis for negotiating a range of public improvements that would come with annexation.

Gaining the support of the city is the next step to annexation. It is recommended that the neighborhood organization set up a meeting with the city to make soft negotiations about their expectations for their neighborhood and changes they would like to see. Once both parties agree that annexation is a viable option, the committee and other community members should spread the word to their neighbors about the benefits of annexation and initiate the annexation process.

There are two ways for a UGA to be annexed into the city. The first is the 60% Direct Annexation Petition Method. This is the most common process and begins by the community gathering signatures from 10% of the residents or 10% of property owners in favor of annexation. The person then files the signatures with the city which may initiate a public review process by the City. If this occurs, the supporters will be required to present signatures from 60% of the property owner's land assessment in the proposed annexation area.

The second method is the Alternative Direct Petition Method. This one begins in a similar fashion. The supporters must first gather signatures from 10% of the property owners or 10% of the residents and file them with the city. If the City Council holds a public review process, the supporters must present signatures that show support from the majority of the property owners' acreage and registered voters in the area.

The City Council will then hold a vote to decide whether they approve or deny the annexation.

How to Get the Annexation Process Started

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AN URBAN TRANSITIONS STUDIO PROJECT

ALDERWOOD NEIGHBORHOOD

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2017